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ABSTRACT

A field test of "Guiding Older Children As Tutors," one of the four motivational-instructional procedures of Individually Guided Motivation (IGM), was used in two Milwaukee, Wisconsin schools. A total of 34 tutees, 22 tutors, and 24 adults participated in the field test during the 1972-73 school year. The field test objectives sought an increase in the motivation, self-direction, and achievement of the tutees; a demonstration of the tutor's ability to conduct sessions; and a demonstration of the school staff's ability to implement the procedure. In addition, the field test was designed to determine the adequacy of the IGM book and films and the feasibility of the procedure in elementary school classrooms. The results indicated an increase in the general level of motivation and self-direction in the tutees of one school, but not the other. The tutee's motivation and self-direction during tutoring sessions and while working on the tutored subject matter outside the tutoring sessions did not increase but started out and remained at a high level. Achievement of tutees did increase more than that of comparison groups when only tutored skills or items were considered. The tutors demonstrated their ability to conduct sessions, and the school staffs demonstrated their ability to implement the procedure. The IGM books and films proved sufficient to support tutoring implementation. The tutoring procedure itself was determined to be a feasible curriculum component for an elementary school if modified in terms of its demands on staff time. (Author)

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Technical Report No. 325

GUIDING OLDER CHILDREN AS TUTORS: A REPORT ON THE FIELD TEST

by

Nancy Zajano and W. Donald Hubbard

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WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

MISSION

The mission of the Wisconsin Research and Development Center for Cognitive Learning is to help learners develop as rapidly and effectively as possible their potential as human beings and as contributing members of society. The R&D Center is striving to fulfill this goal by

- conducting research to discover more about how children learn
- developing improved instructional strategies, processes and materials for school administrators, teachers, and children, and
- offering assistance to educators and citizens which will help transfer the outcomes of research and development into practice

PROGRAM

The activities of the Wisconsin R&D Center are organized around one unifying theme, Individually Guided Education.

FUNDING

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I

INTRODUCTION

The system of Individually Guided Motivation (IGM) was developed at the Wisconsin Research and Development Center for Cognitive Learning as a complement to the system of Individually Guided Education (IGE). The IGE system is designed to tailor the curriculum of each child according to his individual instructional needs and characteristics; similarly, the IGM system is designed to meet the unique motivational needs of each child.

The system of IGM was developed to assist teachers in establishing and maintaining within each child high motivation to learn. As a systematic approach to motivating children, it offers a striking contrast to haphazard and occasional attempts to influence a child's interest in learning. The system of IGM is based on the consistent application of effective motivational principles such as focusing attention, modeling, goal-setting, reasoning, providing feedback, and reinforcing. These principles provide the focal point for the four motivational-instructional procedures that have been developed for the elementary school classroom:

1. Adult-Child Conferences to Encourage Independent Reading
2. Teacher-Child Conferences to Set Goals in Subject Matter Areas
3. Guiding Older Children as Tutors
4. Small-Group Conferences to Encourage Self-Directed Behavior

This paper reports the 1972-73 small-scale field test of the third procedure.

The tutoring procedure is unique among the four procedures that compose the IGM system because it calls on teachers to prepare students to apply the motivational principles inherent to its success, while in the other three IGM procedures the teacher applies the principles directly. In tutoring, although the teacher preassesses the tutee and determines the instructional objective for the tutoring sessions, it is the tutor who is responsible for applying the motivational principles as he and his tutee work on the subject matter at hand. These principles--focusing attention, modeling, providing feedback, and reinforcing--are the means used by the tutor to increase the motivation, self-direction, and skill achievement of his tutee.

A controlled tutoring experiment conducted by the Center (Quilling, Cook, Wardrop, & Klausmeier, 1968) showed tutoring to be an effective way of improving skill achievement. In the second semester of the 1966-67 school year, 22 pupils in a primary unit of an inner city Milwaukee, Wisconsin, school were randomly selected to be tutored in math. The remaining 35 children in this primary unit formed two control groups. After six instructional units, the children receiving

assistance from a randomly assigned sixth-grade tutor had achieved significantly more math skills than the children in the two control groups. The math instruction was the same for all the children, including individual help from the teachers as needed.

Subsequent to this controlled experiment and the research done on the other three motivational-instructional procedures, a book was written to describe the IGM system and how to implement it in elementary schools. This book, Individually Guided Motivation: Guidelines for Implementation,[1] and a package of five films constituted the materials for teachers using the IGM system. These materials were used in the small scale field test reported in this paper. As a result of this field test the book was revised and divided into four separate manuals. These currently include an implementation text,[2] an inservice manual,[3] a guide for volunteer adults holding independent reading conferences,[4] and a booklet for tutors.[5]

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[1] H. J. Klausmeier, D. A. Frayer, and M. R. Quilling, Individually Guided Motivation: Guidelines for implementation. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1972.

[2] H. J. Klausmeier, J. T. Jeter, M. R. Quilling, D. A. Frayer, and P. Allen, Individually Guided Motivation. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1975.

[3] J. T. Jeter, C. G. Katzenmeyer, H. J. Klausmeier, and M. R. Quilling, Inservice implementation manual for Individually Guided Motivation. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1973.

[4] J. T. Jeter, N. J. Nelson, and H. J. Klausmeier, A guide for adult-child reading conferences. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1973.

[5] H. J. Klausmeier, J. T. Jeter, and N. J. Nelson, Tutoring can be fun. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1973.

II

FIELD TEST PLAN

FIELD TEST OBJECTIVES

The original IGM implementation book and the five films were designed to provide school personnel with sufficient information to implement the procedures. Whether these materials fulfilled this goal with regard to the tutoring procedure was a special concern of the tutoring small scale field test. The field test also considered whether the objectives of the tutoring procedure itself were accomplished. That is, could the adults and tutors carry out the tasks identified in the implementation guide in order to accomplish the overall objective of increasing tutee motivation, self-direction, and achievement? As a result, six objectives were stated for the field test of the motivational-instructional procedure Guiding Older Children as Tutors. Four field test objectives were directly concerned with the inherent objectives of the tutoring procedure, and two considered the adequacy of the IGM materials:

Objectives of the tutoring procedure:

1. The tutee increases his motivation and self-direction.
2. The tutee increases his skill achievement in the subject matter of the tutoring sessions.
3. The tutor demonstrates his ability to conduct tutoring sessions.
4. The teacher demonstrates his ability to implement the motivational-instructional procedure, Guiding Older Children as Tutors.

Objectives concerning the IGM materials:

5. The information provided in the book Individually Guided Motivation: Guidelines for Implementation and in the films "Guiding Children as Tutors" and "Individually Guided Motivation: An Overview" proves sufficient to support implementation of the tutoring procedure.
6. The motivational-instructional procedure Guiding Older Children as Tutors proves to be a feasible curriculum component for elementary schools.

SUBJECTS

The field test of the tutoring procedure was held in two middle class Milwaukee, Wisconsin, multiunit schools, Victory

Elementary School and Henry David Thoreau Elementary School. The respective responsibilities of the Center and the schools were outlined in a Memorandum of Agreement (Appendix A).

Each school determined the subject matter for tutoring and the number of adults and pupils to participate in the tutoring procedure. Table 1 reflects these decisions. At Victory tutoring was carried out in one unit of fourth, fifth, and sixth graders. All of the 31 fourth graders in Unit IV were selected as potential tutees because they were judged by their teachers to be below their expected level on the Word Attack component of the Wisconsin Design for Reading Skill Development (WDRSD). At the end of the tutoring procedure, 22 of these pupils actually had been tutored. Twelve sixth graders were originally chosen as tutors but 2 "very quiet" boys dropped out during the preparation period. Thus there were 10 tutors and 22 tutees at Victory. Each tutor instructed only one tutee at a time. Because of all the fourth graders in Unit IV were designated as potential tutees, the fourth graders in Unit III served as a tutee comparison group.

A unit teacher was provided released time by the unit leader in order to serve as the coordinator for tutoring. The four homeroom teachers in Unit IV and their unit leader, the principal, and a Central Office consultant made up the group of participating adults at Victory.

At Thoreau teachers and pupils in three units participated. In Unit B 30 pupils were selected as potential tutees; 6 of these, chosen randomly, became tutees, and the remaining 24 served as a comparison group. The 6 tutees were tutored in reading by 6 tutors from Unit C. In addition, the Unit C staff identified 32 pupils as potential math tutees. Six of these, chosen randomly, became tutees and the remaining children served as a comparison group. Unit D provided 6 math tutors for the Unit C tutees. Approximately one-third of the way through the tutoring sessions, 1 math tutee dropped out because she and her parents felt that she did not need tutoring. She was replaced by another randomly chosen tutee, and this resulted in a total of 7 math tutees overall. Halfway through the tutoring sessions 1 of the math tutees moved out of the school district. She was not replaced.

The Reading Center teacher was the coordinator for the reading tutees and tutors, while the Learning Center teacher served as coordinator for the math tutees and tutors. A total of 12 teachers from Units B, C, and D, the 2 coordinators and their aides, and the principal made up the group of participating adults at Thoreau.

PROCEDURES AND IMPLEMENTATION

The Center sponsored a 2-day workshop in July 1972 for prospective users of IGM. Seven field test personnel attended this workshop; they paid particular attention to the information provided about the tutoring procedure. The principal and the unit teacher who had been identified as the tutoring coordinator came from Victory. Thoreau was represented by its principal, two unit leaders, a unit teacher, and the coordinator for the reading tutees and tutors.

TABLE 1

FIELD TEST PARTICIPANTS

School	Content Area	Unit	Age (Grade)	Number of Pupils				Local Coordinator	Participating Adults (Including Principal)
				In Unit	Tutees	Comparisons	Tutors		
Victory									7
	Word Attack Skills	IV	9-11 (4th-6th)	134	22	--	10	Unit teacher	
		III	8-9 (3rd-4th)	91	--	30	--	--	
Henry David Thoreau									17
	Reading	B	7 (2nd)	167	6	24	--	Reading Center teacher	
	Reading	C	8-9 (3rd-4th)	151			6	Reading Center teacher	
	Math				6	26		Learning Center teacher	
	Math	D	10-11 (5th-6th)	146	--	--	6	Learning Center teacher	
Total				689	34	80	22		24

To prepare themselves for implementing the tutoring procedure the staffs of the field test schools performed a variety of planning tasks. These included holding a local inservice, selecting the subject matter areas for tutoring, choosing tutees and tutors, assigning staff responsibilities, preparing tutors, and setting up tutoring times and places.

At Victory the principal and coordinator conducted two local inservice sessions, totalling 1.5 hours. Subsequently, all the fourth graders in Unit IV were selected to be tutored on Level C of the Word Attack component of the WDRSD. Each of the four homeroom teachers submitted the names of sixth graders who he thought would be effective and responsible tutors. The coordinator then selected as tutors the pupils who had completed all the Word Attack skills.

All the Unit IV pupils were grouped for reading according to skill needs. Consequently, each of the four homeroom teachers had tutees in his reading skill groups at one time or another. It was the responsibility of the skill group teacher to prepare specific tutoring activities for each tutee in his group.

Tutor preparation consisted of eight 40-minute sessions. A supervisor from the Milwaukee central office assisted by preparing five of the tutors while the coordinator prepared the other five. The format for the sessions was basically the same for all tutors. The tutoring sessions began in mid-December 1972 and were held twice a week. Each tutee was tutored for an average of 12 sessions; the range was 1 to 32 sessions. Tutoring ended in late May 1973.

At Thoreau the principal and the reading coordinator took primary responsibility for the local inservice program, which consisted of five 30-minute sessions. The Instructional Improvement Committee (IIC) then chose the subject matter areas for tutoring--reading for the Unit B pupils and math for the Unit C pupils. Six tutees were randomly selected from a larger pool of pupils who showed a lack of achievement, motivation, and social skills. Twelve tutors who exhibited patience, interest, understanding, and a knowledge of the subject matter were chosen. They were matched with the tutees on the basis of personality, sex, and race.

The reading tutees' homeroom teachers were responsible for preparing specific tutoring materials for them, while the math skill group teachers performed this duty for the math tutees. The two coordinators were responsible for preparing the tutors and organizing the times and places for each pair to meet.

Tutor preparation consisted of six 30- to 40-minute sessions. Math tutoring started in mid-November and consisted of 52 sessions. The reading tutees held the first of their 48 sessions in early December. The 20- to 30-minute sessions were held three times a week and ended in early May.

INSTRUMENTATION

In order to accomplish the field test objectives, a variety of instruments were used to assess the motivation and achievement of the tutees, the proficiency of the tutors and teachers, and the usability

of the IGM materials. A summary of the instruments and when they were used is provided in Table 2.

Two instruments were used to ascertain whether the tutee's motivation and self-direction increased during the tutoring procedure. Each instrument included items to assess both motivation and self-direction. The first instrument consisted of the first ten items of Table 2.2 of the IGM book (Appendix B) and measured the pupil's "general level of motivation"; it asked if the pupil attends to tasks, if he begins tasks promptly, if he returns to tasks voluntarily after an interruption, etc. All children in the participating units were assessed with this instrument by their homeroom teacher both before and after the tutoring procedure. At Victory the pretutoring assessment was done immediately prior to tutoring (baseline); at Thoreau it was done 6 weeks before tutoring started (prebaseline). The children identified as tutees and their comparisons were also assessed midway through the tutoring procedure. At Thoreau, the tutees and their comparisons were also assessed immediately prior to tutoring (baseline). Consequently, four scores were available for the Thoreau tutees and their comparisons, three scores were available for the Victory tutees and their comparisons, and two scores were available for the remaining children in the participating units. The teachers were not always consistent about including every child on these assessments. Consequently the number of available results varied from assessment to assessment, especially at Victory.

The second instrument dealt with the tutee's motivation and self-direction during the tutoring sessions and while working on the tutored subject matter outside of the sessions. The tutor answered the first eight items, which dealt with the tutee's behavior during the sessions, while the tutee's teacher completed the last three items, which concerned the tutee's behavior outside of the sessions. Table 5.4 from the IGM book was used for this assessment although its format and vocabulary were revised to make it easier for the tutor to use (Appendix B). This assessment was completed three times, at approximately the beginning, middle, and end of the tutoring sessions.

The instruments used to assess the tutee's skill achievement were selected by each school as a result of its choice of the tutored subject matter. At Victory it was first thought that the Level B skills for the Word Attack component of the Wisconsin Design would be the appropriate level for tutoring. Upon completion of the criterion-referenced tests for this level, it was discovered that all the potential tutees had mastered this level. Because of the need to reassess at a higher level and the time used for this process, the original plan of obtaining a prebaseline score at Victory was discarded. A baseline score was then obtained on the Level C Wisconsin Tests of Reading Skill Development: Word Attack for both the potential tutees and their comparisons. Mid-tutoring and end-tutoring scores were also gathered.

At Thoreau prebaseline and baseline assessments were accomplished for both reading and math tutees and their comparisons. The reading coordinator developed her own test of 10 reading skills by borrowing items from various standardized tests and devising some items herself

TABLE 2

SUMMARY OF OBJECTIVES, INSTRUMENTATION, AND TIMETABLE

Field Test Objective	Instrument[a]	Population	Timetable
1. The tutee increases his motivation and self-direction.	Table 2.2 (first 10 items)	All students in participating units	Victory: baseline, end-tutoring Thoreau: prebaseline, end-tutoring
		Tutees and comparisons	Victory: baseline, mid-tutoring, end-tutoring Thoreau: prebaseline, baseline, mid-tutoring, end-tutoring
	Table 5.4	Tutees	Beginning, mid-tutoring, end-tutoring
2. The tutee increases his skill achievement in the subject matter of the tutoring sessions.	Criterion-referenced or diagnostic tests	Tutees and comparisons	Victory: baseline, mid-tutoring, end-tutoring Thoreau: prebaseline, baseline, mid-tutoring, end-tutoring
3. The tutor demonstrates his ability to conduct tutoring sessions.	Table 5.2	50% random sample of tutors	Completed self-evaluation forms at 7-week intervals
		2 to 4 tutors	Observed by Center staff during each of 3 visits
4. The teacher demonstrates his ability to implement the motivational-instructional procedure Guiding Older Children as Tutors.	Table 5.5	Principals and coordinators	Interviewed prior to start of tutoring sessions
	Table 5.3	Coordinators	Interviewed by Center staff 3 times at 7-week intervals
		50% random sample of participating adults	Completed self-evaluation forms 3 times at 7-week intervals

Table 2 (continued)

Field Test Objective	Instrument[a]	Population	Timetable
5. The information provided in the book Individually Guided Motivation: Guidelines for Implementation and in the films "Guiding Children as Tutors" and "Individually Guided Motivation: An Overview" proves sufficient to support implementation of the tutoring procedure.	Comment cards	50% random sample of participating adults	Completed on ad hoc basis
	Interview based on comment cards and formative evaluation questions	Coordinators	Interviewed by Center staff 4 times during implementation
6. The motivational-instructional procedure Guiding Older Children as Tutors proves to be a feasible curriculum component for elementary schools.	Comment cards	50% random sample of participating adults	Completed on ad hoc basis
	Interview based on comment cards and formative evaluation questions	Coordinators	Interviewed by Center staff 4 times during implementation

[a]Tables are from the IGM book.

(Appendix C). The math tutees were assessed with the diagnostic tests accompanying Books 2 and 3 of the Addison-Wesley Elementary School Mathematics Program currently in use at Thoreau. Mid-tutoring and end-tutoring scores were also obtained.

To evaluate the tutors' performance three different 50 percent random samples of tutors completed a self-evaluation form at seven-week intervals during the procedure. Table 5.2 in the IGM book lists 17 specific tasks to be performed by the tutor. This table was used both as the self-evaluation form and as a guide for a Center staff member who observed two to four tutors during three visits to each field test school (Appendix D).

The ability of the teachers to implement the tutoring procedure as suggested by the IGM book was assessed with two checklists. The first checklist (Table 5.5 in the IGM book) listed the planning tasks to be performed as a school prepared for tutoring. This table was used once as the basis for a Center monitoring interview with the principal and coordinator(s) at each school. The second instrument (Table 5.3 in the IGM book) identified the maintenance tasks necessary to keep the tutoring procedure running smoothly. It was used by a Center staff member to interview the coordinators three times at 7-week intervals during the use of the tutoring procedure. In addition, three different 50 percent random samples of participating adults responded to whether or not they had completed the tasks listed on the table. This self-evaluation took place at seven-week intervals. (Both tables can be found in Appendix E.)

To evaluate the sufficiency of the IGM book and the accompanying films, comment cards and interviews were used. A 50 percent random sample of participating adults was asked to complete comment cards on an ad hoc basis. This sample was instructed to comment on any or all aspects of the materials or on the guidelines presented in the book or in the films. Of particular interest were problems or difficulties encountered in using the materials and guidelines. These adults were also asked to specify any successes they had in using the materials and any particularly helpful parts of the materials. During the field test 41 comment cards were collected (Appendix F).

In addition to the comment cards a series of four formative interviews was held with the coordinator to ask specific questions about the sufficiency of the IGM book and films. These interviews were primarily based on a list of formative evaluation questions raised by the developers of the IGM materials (Appendix F), but also included questions on issues mentioned on the comment cards. At Thoreau a meeting was held with all interested teachers at the end of the year to allow them to make further comments and suggestions about the tutoring materials. The results from the comment cards, the formative interviews, and the meeting with Thoreau teachers formed the basis for subsequent revisions of the IGM materials.

The comment cards, the formative interviews, and the meeting with Thoreau teachers were also used to ascertain the feasibility of the tutoring procedure. Of particular interest was the amount of teacher and pupil time needed to implement the procedure. Whether or not its guidelines for implementation were usable in a "real world" setting was also a special concern of the field test.

III

RESULTS AND DISCUSSION

TUTEE MOTIVATION AND SELF-DIRECTION

Objective: The tutee increases his motivation and self-direction.

Two instruments were used to assess this objective; each dealt with both motivation and self-direction. The first instrument concerned the tutee's general level of motivation and self-direction and the second assessed his motivation and self-direction during the tutoring sessions and while working on the tutored subject matter outside of the sessions. A mean score was obtained for each subgroup for each administration of these instruments.

General Level of Motivation and Self-Direction

Table 3 reports the combined results of the tutees and of their comparisons at Victory and Thoreau. The baseline assessment was made just prior to the beginning of the tutoring sessions. The mid-tutoring assessment was made approximately halfway through the sessions, and the end-tutoring score was obtained after the last session.

TABLE 3

GENERAL LEVEL OF MOTIVATION:
BOTH SCHOOLS, TUTEES AND COMPARISONS[a]

	Baseline			Mid-Tutoring			End-Tutoring		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Tutees	35	1.56	0.42	35	2.01	0.52	28	1.87	0.52
Comparisons	70	1.80	0.49	77	1.89	0.52	71	1.94	0.59

[a]Scale of 1-3.

The favorable increases for the tutees from the combined scores are somewhat misleading because all the change took place at Victory, as indicated by the results in Table 4. Victory scores are reported for the tutees, their comparisons, and the nontutored students who were originally designated as potential tutees. (Only 21 of the 30 comparison students were assessed by teachers during the baseline period. This apparently was due to an oversight.) The tutees' scores on general level of motivation were closer to the higher scores of the comparisons after tutoring than they were before. This is also true of the non-tutored group, but not to the same extent.

Despite minor fluctuations in the scores at the Thoreau school there was basically no change in general level of motivation for either the tutees or their comparisons. One reminder is in order at this point. The Victory tutees were not randomly selected from a larger comparison group. Rather, they were identified as potential tutees by virtue of being fourth graders in Unit IV. The fourth graders from Unit III served as comparisons. The tutees at Thoreau were randomly selected from a larger group identified as potential tutees, and the remaining students served as comparisons.

TABLE 4

GENERAL LEVEL OF MOTIVATION:
VICTORY TUTEES, COMPARISONS, AND NONTUTORED STUDENTS,
THOREAU TUTEES AND COMPARISONS[a]

	Prebaseline			Baseline			Mid-Tutoring			End-Tutoring		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Victory												
Tutees	--	--	--	22	1.39	0.26	22	2.10	0.52	16	1.82	0.45
Comparisons	--	--	--	21	1.84	0.52	30	1.97	0.53	30	2.02	0.56
Nontutored Students	--	--	--	8	1.31	0.29	6	1.60	0.42	7	1.61	0.39
Thoreau												
Tutees	13	1.94	0.48	13	1.85	0.48	13	1.85	0.51	12	1.94	0.61
Comparisons	50	1.85	0.55	49	1.78	0.47	47	1.84	0.52	41	1.87	0.61

[a]Scale of 1-3.

The results from Thoreau can be broken down into the results for the reading and math tutees and their corresponding comparison groups. This breakdown is shown in Table 5. The scores of the reading tutees increased more than those of their comparisons while the scores of the math comparisons increased more than those of corresponding tutees. These mixed results reinforce the conclusion that tutoring did not increase the general level of motivation for the Thoreau tutees.

TABLE 5

GENERAL LEVEL OF MOTIVATION:
THOREAU READING TUTEES AND COMPARISONS,
AND MATH TUTEES AND COMPARISONS[a]

	Prebaseline			Baseline			Mid-Tutoring			End-Tutoring		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Reading Tutees	6	2.07	0.39	6	1.93	0.35	6	1.88	0.43	6	2.07	0.60
Reading Comparisons	24	2.05	0.54	24	1.95	0.41	22	1.99	0.52	18	1.96	0.65
Math Tutees	7	1.83	0.54	7	1.77	0.59	7	1.81	0.65	6	1.82	0.65
Math Comparisons	26	1.66	0.50	25	1.61	0.47	25	1.70	0.50	23	1.80	0.58

[a]Scale of 1-3.

An interesting sidelight resulted from a comparison of the tutees' motivational level with that of other students in the participating units, as shown on Table 6. At Victory the remaining students (those who had not been identified as tutees, tutors, or comparisons) were assessed immediately prior to the tutoring sessions (baseline) while at Thoreau these students were assessed six weeks before tutoring started (prebaseline).

At Victory the tutees scored 0.76 lower than the other students on the baseline assessment. At the end-tutoring assessment they scored .45 lower, thereby coming closer to the rest of the school in terms of general level of motivation. At Thoreau, there was little or no difference between the tutees, the comparisons, and the others in the participating units throughout the year.

It was also interesting, though not a part of the field test objective, to see how the tutors compared to the tutees and the others in terms of general level of motivation. The IGM book suggested that

high levels of motivation and self-direction are characteristics to look for when selecting tutors. The results on Table 6 indicate that teachers did take these factors into account. The tutors at both schools scored very high on the first assessment--2.75 at Victory and 2.72 at Thoreau on a 3-point scale. Although their scores on the end-tutoring assessment dropped slightly the tutors still scored quite a bit higher than the tutees and the others.

In summary, it can be said that the tutees at Victory increased somewhat in general level of motivation and self-direction while those at Thoreau did not. The Victory tutees gained 0.35 more than their comparisons and 0.13 more than the non-tutored students. They also closed the gap on the other students in the participating units by 0.31 after tutoring. Thoreau tutees and their comparisons stayed basically the same throughout the procedure; minor fluctuations favored first one group and then the other. Their scores were similar to those of the other students in their units throughout the procedure. The tutors at both schools scored higher on general level of motivation and self-direction than the tutees and others both at the beginning and end of the tutoring procedure.

TABLE 6

GENERAL LEVEL OF MOTIVATION:
VICTORY AND THOREAU TUTEES, COMPARISONS, TUTORS, AND OTHERS[a]

	Prebaseline			Baseline			Mid-Tutoring			End-Tutoring		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Victory												
Tutees	--	--	--	22	1.39	0.26	22	2.10	0.52	16	1.82	0.45
Comparisons	--	--	--	21	1.84	0.52	30	1.97	0.53	30	2.02	0.56
Non-Tutored Students	--	--	--	8	1.31	0.29	6	1.60	0.42	7	1.61	0.39
Tutors	--	--	--	10	2.75	0.33	--	--	--	10	2.58	0.36
Others	--	--	--	152	2.17	0.61	--	--	--	144	2.27	0.53
Thoreau												
Tutees	13	1.94	0.48	13	1.85	0.48	13	1.85	0.51	12	1.94	0.61
Comparisons	50	1.85	0.55	49	1.78	0.47	47	1.84	0.52	41	1.87	0.61
Tutors	12	2.72	0.42	--	--	--	--	--	--	12	2.69	0.29
Others	357	2.04	0.62	--	--	--	--	--	--	307	1.96	0.55

[a]Scale of 1-3.

Motivation During Tutoring and While Working on Tutored Subject Matter

The second instrument used to assess the tutee's motivation and self-direction considered his behavior during the tutoring session (assessed by the tutor) and while working on the tutored subject matter outside of the tutoring sessions (assessed by the teacher who was responsible for preparing the specific tutoring activities). The assessment was given three times. Because of the nature of the questions, it was not possible to obtain a baseline score; consequently, the three assessments approximate the beginning, middle, and end of the tutoring period.

The two field test schools completed this assessment differently because of their different arrangements for tutoring. At Victory 10 tutors instructed all 22 tutees; thus no one tutor necessarily assessed the same tutee each time and not every tutee was assessed each time. At Thoreau the tutors and tutees were paired at the beginning and never changed. As a result each tutee was assessed by the same tutor all three times. Because of this difference in the use of the instruments it is not possible to combine the scores for the two schools. The results for Victory and Thoreau are given separately in Table 7.

At Victory the scores of the tutees increased slightly from the first to the second administration and then dropped from the second to third, resulting in an overall decrease of 0.11 points. It should be noted that the tutees' scores were at a relatively high level to start with, 2.55 on a 3-point scale. It may have been unrealistic to expect an increase in these scores. At Thoreau the scores of the tutees showed a very slight increase over the three administrations. Their beginning level was also relatively high, 2.20 on a 3-point scale. The slight increase at Thoreau is a function of a minor improvement in the reading tutees, however, as can be seen by the results on Table 7.

TABLE 7

MOTIVATION AND SELF-DIRECTION DURING TUTORING SESSIONS AND WHILE WORKING ON TUTORED SUBJECT MATTER: VICTORY AND THOREAU TUTEES[a]

	First Administration			Second Administration			Third Administration		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Victory	9	2.55	0.12	10	2.67	0.27	9	2.44	0.30
Thoreau	12	2.20	0.22	12	2.18	0.25	11	2.24	0.29
Reading	6	2.17	0.19	6	2.24	0.26	6	2.29	0.31
Math	6	2.23	0.26	6	2.11	0.25	5	2.18	0.30

[a]Scale of 1-3.

In summary it can be said that although the tutees did not show substantial increases in their motivation and self-direction during the tutoring sessions and while working on the tutored subject matter, they maintained fairly high levels throughout the tutoring procedure.

An interesting feature of these results is the difference between the assessments made by the tutors and those made by the teachers. The tutors consistently gave higher scores to the tutees. Table 8 indicates the grand means of the scores given by the tutors and the scores given by the teachers. Whether the higher scores given by the tutors were a function of a difference in the internal scales of the tutors and the teachers or were due to an actual difference in the behavior of the tutees during and outside of the sessions is unclear.

TABLE 8

GRAND MEANS OF TUTOR-ASSESSED MOTIVATION DURING TUTORING SESSIONS AND TEACHER-ASSESSED MOTIVATION WHILE WORKING ON TUTORED SUBJECT MATTER[a]

	Motivation During Tutoring Sessions (8 items) Assessed by Tutor			Motivation While Working on Tutored Subject Matter (3 items) Assessed by Teacher		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Victory	28	2.81	0.22	27	1.84	0.54
Thoreau	35	2.35	0.27	35	1.81	0.51
Reading	18	2.38	0.28	18	1.83	0.43
Math	17	2.32	0.27	17	1.78	0.59

[a]Scale of 1-3.

It is also interesting to compare the two measures of motivation and self-direction used in the field test. The tutees scored consistently higher on the instrument assessing their motivation during the sessions and while working on the tutored subject matter outside of the sessions than they did on the instrument assessing their general level of motivation. Table 9 shows the grand means for these two instruments. It might be thought that these results indicate that the tutees were more highly motivated by tutoring experiences than by school in general. The higher scores on the tutoring-related instrument, however, were once again a function of the tutor-given scores, as can be seen in Table 10. The teacher-given scores for general level of motivation and for motivation while working on the tutored subject matter were very similar,

while the tutor-given scores were substantially higher. This is true for both schools and for both the reading and math programs at Thoreau. Again, it is unclear whether these results were due to a difference in the behavior of the tutees in the different settings, or to a difference in the expectations of the tutors and the teachers.

TABLE 9

GRAND MEANS OF GENERAL LEVEL OF MOTIVATION AND MOTIVATION DURING TUTORING SESSIONS AND WHILE WORKING ON TUTORED SUBJECT MATTER[a]

	General Level of Motivation			Motivation During Sessions and While Working on the Tutored Subject Matter		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Victory	60	1.76	0.52	28	2.56	0.25
Thoreau	51	1.89	0.51	35	2.20	0.25
Reading	24	1.99	0.43	18	2.23	0.25
Math	27	1.80	0.56	17	2.17	0.25

[a]Scale of 1-3.

TABLE 10

GRAND MEANS OF GENERAL LEVEL OF MOTIVATION, MOTIVATION DURING TUTORING SESSIONS AS ASSESSED BY TUTORS, AND MOTIVATION WHILE WORKING ON TUTORED SUBJECT MATTER AS ASSESSED BY TEACHERS[a]

	General Level of Motivation, Assessed by Teacher			Motivation During Tutoring Sessions, Assessed by Tutor			Motivation While Working on Tutored Subject Matter, Assessed by Teacher		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Victory	60	1.76	0.52	28	2.81	0.22	27	1.84	0.54
Thoreau	51	1.89	0.51	35	2.35	0.27	35	1.81	0.51
Reading	24	1.99	0.43	18	2.38	0.28	18	1.83	0.43
Math	27	1.80	0.56	17	2.32	0.27	17	1.78	0.59

[a]Scale of 1-3.

Summary

In summary, two instruments were used to assess whether the motivation and self-direction of the tutee increased. With regard to general level of motivation and self-direction, there was a positive trend for the Victory tutees while there was basically no change at Thoreau. At Victory, the scores of the tutees were substantially lower than those of the other students in the school at the beginning of the procedure, but were closer to them at the end. At Thoreau, the scores of the tutees were similar to those of the others throughout the tutoring procedure. The tutors at both schools scored higher than the tutees and the other students throughout the procedure.

There was no increase in motivation and self-direction during the tutoring sessions and while working on the tutored subject matter outside of the sessions, although the tutees demonstrated a fairly high level at the start and maintained it throughout the tutoring procedure. In addition, the ratings given to tutees by tutors were consistently higher than those given by teachers. This was true for both schools throughout the tutoring procedure.

TUTEE ACHIEVEMENT

Objective: The tutee increases his skill achievement in the subject matter of the tutoring sessions.

At Victory the instrument used to assess this objective consisted of the sixteen subtests of the WTRSD Word Attack, Level C, Form P. Of the sixteen skills tested, twelve were the subject of tutoring. The mean percent scores of correct items are reported in Table 11 for the twelve skills. The reported scores consider when the tutoring on these skills occurred and are for only those testing occasions immediately prior to and immediately following the tutoring sessions. Three tutoring periods are differentiated. In the first tutoring period (between the baseline and mid-tutoring testing) 14 tutees were tutored on an average of 2.1 skills. In the second period (between the mid-testing and end-testing occasions) 13 tutees were tutored on an average of 1.6 skills. Six tutees were tutored on an average of 2.0 skills during both periods. Overall pretutoring and posttutoring mean scores are also included. These two scores are weighted means of the pretutoring and posttutoring mean scores of the three groups of tutees. The end-tutoring mean score was used for the posttutoring score for the tutees tutored during both periods, while the mid-tutoring mean score was used as the pretutoring score for the tutees tutored only during the second period.

TABLE 11

MEAN PERCENT CORRECT ITEMS ON WTRSD LEVEL C SUBTESTS FOR TUTORED SKILLS: THREE GROUPS OF VICTORY TUTEES

Tutees	N[a]	Baseline	Mid-Tutoring	End-Tutoring
Tutored in first period	29	70.4%	84.9%	--
Tutored in second period	25	--	71.9%	81.0%
Tutored in both periods	12	64.0%	72.4%	75.4%
Overall pre-post	66	69.8%	--	81.7%

[a]Combination of students and skills.

The data reported in Table 11 reveal a substantial increase in the reading achievement of the tutees. The first two groups of tutees attained mean scores that surpassed the 80% mastery level and the overall posttutoring score was above this level. The other group of tutees were tutored during both periods. Tutees in this group had substantially lower mean baseline scores than the tutees in the other two groups but at the end of the first period the mean scores increased to the pretutoring level of the other two groups. The tutoring that was continued during the second period, however, did not increase their mean scores to the posttutoring level of the other two groups. The effect of the tutoring was not extended much through more tutoring. In order to create a truer comparison group for these three groups of tutees, an attempt was made to select a combination of students and skills identical to that of each group of tutees. In other words, if six tutees were tutored on Skill 1 during the first period, then six Skill 1 scores from the comparison students were randomly selected to contrast with those of the tutees.

The first step in this process was to reduce the number of students in the comparison group from thirty to twenty-two, the size of the tutee group. This was done through random sampling. The next step was to record all the baseline scores from the 22 comparison students that fell within the range of baseline scores exhibited by the tutees. This set of baseline scores provided a pool of students who would have been eligible for tutoring. The subsequent mid- and end-tutoring scores for this simulated comparison group were contrasted with those of the tutees. The scores were randomly drawn under the following conditions: each skill was represented the same number of times that it was for the tutees and the mean number of skills within each period was the same as for the tutees. For example, if Skill 2 was included eight times in the total tutee score, then eight randomly selected scores on Skill 2 were included for the total comparison group score. If a total of 3 skills were included during the first period for the

tutees then 3 skills were included for this period for the comparison group. The match was not perfect. The range in the number of skills per student was somewhat lower for the simulated comparison group than for the tutees (1-5 versus 1-7). The mean scores for the three simulated groups of students are shown in Table 12. The overall pre-tutoring posttutoring scores were calculated in the same manner as for the tutees.

TABLE 12

MEAN PERCENT CORRECT ITEMS ON WTRSD LEVEL C SUBTESTS FOR TUTORED SKILLS: THREE SETS OF VICTORY COMPARISONS

Comparisons (Simulated)	N[a]	Baseline	Mid-Tutoring	End-Tutoring
First period	29	64.3%	75.2%	--
Second period	25	--	81.4%	85.3%
Both periods	12	60.7%	72.9%	78.3%
Overall pre-post	66	65.2%	--	74.4%

[a]Combination of students and skills.

In creating this simulation it was not assumed that the students in the comparison group received instruction in the selected skills. It was assumed that the students had skill deficiencies similar to those of the tutees. Some of them must have received instruction in the selected skills; it is possible that many did. Victory is a multi-unit school using the Wisconsin Design for Reading Skill Development. It is standard operating procedure for multiunit schools to provide instruction that accommodates the learning deficiencies of the students.

The data reported in Table 12 show an increase in the reading achievement level that is slightly less than that of the tutees. The simulated comparison group showed a 9 percent increase from the overall pretutoring score to the overall posttutoring score. The achievement level of the tutees increased 12 percent between these two measures.

At Thoreau the two sets of tutees were tutored in different subject matter areas (reading and math); thus it was not possible to obtain a single set of data to assess the increase in the achievement of all of the tutees. Each set of tutees was treated separately and it was assumed that they were independent because even though the tutoring procedure involved teachers and students in the same school (and in

some instances in the same unit), the tutees, tutors, and coordinators in each set were different and correlation of performance on the subject matters has traditionally been low.

Reading achievement at Thoreau was assessed by a set of ten reading tests developed by the tutoring coordinator. The tutees' mean scores for the nine skills on which they were tutored are reported in Table 13. These scores reflect the testing occasions immediately preceding and following the tutoring sessions for each skill.

Some tutees started and finished a set of distinct skills prior to the mid-tutoring testing and then started a new set in the second period. They also worked on other skills during both periods. To be precise, of the six reading tutees, five were tutored on an average of 1.6 skills during the first period, four were tutored on an average of 1.7 skills during the second period, and all six were tutored on an average of 1.8 skills during both periods. Two pretutoring scores and a posttutoring score were calculated from weighted means of the two scores prior to tutoring and the score following tutoring.

TABLE 13

MEAN SKILL SCORES ON THE READING ACHIEVEMENT BATTERY FOR TUTORED SKILLS: THREE GROUPS OF THOREAU TUTEES[a]

Tutees	N[b]	Prebaseline	Baseline	Mid-Tutoring	End-Tutoring
Tutored in first period	8	6.63	6.50	9.50	--
Tutored in second period	6	--	5.16	7.50	9.33
Tutored in both periods	11	5.27	6.36	8.18	8.36
Overall pre-post	25	5.68	6.68	--	8.96

[a]Scale of 0-10.

[b]Combination of students and skills.

There is evidence in Table 13 that the reading achievement level of the tutees increased. The overall posttutoring score is less than 1 percent below the mastery level of 9.0 established by the coordinator, and two groups of tutees attained posttutoring achievement levels far in excess of that level. The other group of tutees was tutored in both periods. As in the Victory data, the tutoring procedure did not seem to have an accumulative effect. There is an interesting finding in the Table 13 data: the tutees tutored in the second period showed a substantial increase in achievement level between the baseline and mid-tutoring testing occasions, a period during which these students were not tutored. This increase is larger than the one obtained during the time these students were tutored.

A truer comparison group was also formed for the Thoreau reading tutees. Six students were randomly selected from the comparison group and their prebaseline scores that fell within the range of the tutees' scores were recorded. With only six students and nine skills to include in the calculations there was not much latitude in setting up the combinations of students and skills similar to those of the tutees. Combinations were selected to meet the following criteria: the number of tutored skills per student was to be the same as for the tutees, the number of students and skills for each tutoring period was to be the same as for the tutees, the students in the category "both periods" were to have score characteristics similar to those of the tutees, and all tutored skills were to be represented. One other characteristic was not obtained: the skills themselves were not represented in the same proportion as they were for the tutees. Considerably more manipulation was required in creating this simulated set of data than was required for the Victory data. Table 14 contains the mean skill scores for the simulated comparison group.

TABLE 14

MEAN SKILL SCORES ON THE READING ACHIEVEMENT BATTERY FOR TUTORED SKILLS: THREE SETS OF THOREAU COMPARISONS[a]

Comparisons (Simulated)	N[b]	Prebaseline	Baseline	Mid-Tutoring	End-Tutoring
First period	8	5.75	8.25	9.50	--
Second period	6	--	5.17	7.17	7.17
Both periods	11	5.45	6.55	8.09	8.27
Overall pre-post	25	5.44	7.24	--	8.40

[a]Scale of 0-10.

[b]Combination of students and skills.

The qualification given for the Victory analysis applies for this analysis as well. No assumption was made that instruction was provided for each of the selected student-skill combinations. The selected students did have skill deficiencies similar to those of the tutees and they attended a multiunit school that consciously provides instruction that accommodates students' skill deficiencies. The data indicate that the reading achievement level of this simulated comparison group increased less than that of the tutees. It can be concluded that the achievement level of the Thoreau reading tutees increased.

The math achievement levels for the Thoreau tutees were assessed by the diagnostic tests accompanying the Addison-Wesley Elementary School Mathematics Program (Books 2 and 3). The mean scores for the tutees and comparisons are given in Table 15.

TABLE 15

MEAN SCORES ON THE MATH DIAGNOSTIC BATTERY: THOREAU TUTEES AND COMPARISONS[a]

	N	Prebaseline	Baseline	Mid-Tutoring	End-Tutoring
Tutees	6	5.20	6.13	8.01	8.33
Comparisons	26	5.74	6.74	8.27	8.60

[a]Scale of 0-10.

The data indicate that there was an increase in the math achievement level of the tutees and that this increase was slightly greater than that of the comparisons. All of the difference between the two groups was found in the period between the baseline and mid-tutoring testing occasions.

Refinement in the analysis of these data was complicated by the nature of the tests and the decision rules used by the tutoring coordinator in assigning the tutoring material to the tutee. The tests were not single skill tests, but rather included a variety of skills within each subtest. Often, each of the ten items in a subtest assessed a different skill. To compound this confusion the tutoring coordinator selected items for the content of a tutoring session on his best judgment as to the specific instructional need of the tutee. Thus it is speculative to designate "tutored skills" and it was impossible to create a simulated comparison group.

The alternative that was available was to analyze the proportion of the tutored items that were answered correctly before and after the tutoring session. Table 16 contains data relative to these proportions for the tutoring period between the baseline and mid-tutoring testing occasions for six tutees on an average of 14.2 items.

TABLE 16

NUMBER OF TUTORED ITEMS ON MATH DIAGNOSTIC BATTERY
ANSWERED CORRECTLY AND INCORRECTLY:
THOREAU TUTEES, BASELINE AND MID-TUTORING TESTING OCCASIONS

	Mid-Tutoring Testing Occasion		
Baseline Testing Occasion	Correct	Incorrect	Total
Correct	45	6	51
Incorrect	27	7	34
Total	72	13	85

The data reported in Table 16 indicate that there was an increase in the math achievement level of the tutees. The baseline mastery rate was 0.60 and the mid-tutoring mastery rate was 0.85. In addition 79 percent of the 34 items answered incorrectly at baseline testing were answered correctly at mid-tutoring testing. A similar analysis was performed on the same items for the comparison group. The mastery level increased from 74 percent to 87 percent over the same period, and 70 percent of the items answered incorrectly at baseline testing were answered correctly at mid-tutoring testing.

The same analysis was performed for the tutoring period between the mid-tutoring and end-tutoring testing occasions. Seven tutees were tutored on an average of 11.7 items during this time. Table 17 contains the number of correctly and incorrectly answered tutored items for these two testing occasions.

TABLE 17

NUMBER OF TUTORED ITEMS ON MATH DIAGNOSTIC BATTERY
ANSWERED CORRECTLY AND INCORRECTLY: THOREAU TUTEES,
MID-TUTORING AND END-TUTORING TESTING OCCASIONS

	End-Tutoring Testing Occasion		
Mid-Tutoring Testing Occasion	Correct	Incorrect	Total
Correct	34	5	39
Incorrect	15	16	31
Total	49	21	70

Although not as conclusive as in the previous analysis, there is evidence of an increase in the tutees' math achievement. The mastery levels increased from 56 percent to 70 percent but only 48 percent of the items answered incorrectly before tutoring were answered correctly following tutoring. The mastery levels for the comparisons on the same items increased from 82 percent to 83 percent and they correctly answered 63 percent of the items they had incorrectly answered at the beginning of the period.

Four tutees were tutored on an average of 6.8 items during both tutoring periods. Table 18 contains the data related to responses on these tutored items.

TABLE 18

NUMBER OF TUTORED ITEMS ON MATH DIAGNOSTIC BATTERY ANSWERED CORRECTLY AND INCORRECTLY ON THREE TESTING OCCASIONS: THOREAU TUTEES, TUTORED DURING BOTH TUTORING PERIODS

	Mid-Tutoring Testing Occasion		End-Tutoring Testing Occasion		
Baseline Testing Occasion	Correct	Incorrect	Correct	Incorrect	Total[a]
Correct	1	0	1	0	1
Incorrect	23	3	24	2	26
Total	24	3	25	2	27

[a] Not counting repeated observations.

The data in Table 18 yield dramatic evidence of the increase in the tutees' math achievement. They also indicate marginal gains for extended tutoring periods. The mastery rates increased from 4 percent to 89 percent to 93 percent, and 88 percent of the items answered incorrectly at baseline testing were answered correctly at mid-tutoring testing while another 4 percent of them were answered correctly at the end-tutoring testing. The mastery rate of the comparison group increased from 75 percent to 84 percent to 86 percent, and 69 percent of the items answered incorrectly at baseline testing were answered correctly at mid-tutoring testing while another 3 percent of them were answered correctly at end-tutoring testing.

When the data from all three sets of tutees were combined the mastery level of the tutees was found to have increased from 50 percent to 80 percent, and 73 percent of the incorrectly answered items were found to have been answered correctly following tutoring. The mastery rate of the comparisons increased from 78 percent to 84 percent, and 68 percent of the incorrectly answered items were answered correctly

at the end of the period. These data are not conclusively supportive of a tutoring effect for the Thoreau math tutees. The increase in mastery level was much greater for the tutees than for the comparisons, but the percent of incorrectly answered items that were answered correctly after tutoring was not as different from a comparable percent for the comparisons as could be expected. The poor percent of incorrectly answered items that were answered correctly after the second tutoring period qualifies the comparisons that can be made in this regard. Considering all the evidence, however, there is some support for the conclusion that the mathematics achievement of the Thoreau tutees increased.

In summary, there was evidence in all three tutoring situations that the achievement level of the tutees increased. The evidence was found in two cases (Victory reading and Thoreau reading) by considering only the skills that were tutored and contrasting gains in those skills with comparable results from a simulated comparison group. In one case (Thoreau math) the favorable contrast was obtained by compiling data from only those test items that covered the content of the tutoring sessions.

TUTOR ABILITY TO CONDUCT SESSIONS

Objective: The tutor demonstrates his ability to conduct tutoring sessions.

In order to assess this objective different 50 percent random samples of tutors evaluated themselves three times on whether or not they had performed the 17 tasks listed in Table 5.2 of the IGM book. This self-evaluation was first completed three weeks after the tutoring sessions began and was repeated twice at 7-week intervals. Each tutor was told to think only of the tutoring session he had just finished as he assessed himself. In all, 33 self-evaluation forms were completed. In addition, the same evaluation form was completed for 17 tutors by a Center observer during three monitoring visits to the field test schools. These visits took place at approximately the same times as the tutor self-evaluations. No attempt was made to randomly select tutors to be observed. Rather, the Center visitor monitored whichever tutor-tutee pairs were available during the visit. An attempt was made to observe as many different tutors as possible. Often, however, all tutors were holding sessions at the same time, so it was not possible to monitor each session completely.

A mean percent score was tabulated to reflect the number of tasks the tutor performed. If no response was recorded the total number of items was adjusted accordingly, so that the mean percent score reflects the number of yes responses over the number of items answered. This procedure was adopted to account for the occasions when the Center observer was not able to observe an entire session and consequently could not record whether or not each task was performed. It also was used when a tutor did not answer an item on his self-evaluation form.

Table 19 reports the results of the tutor self-evaluations at both schools. The scores of the Thoreau reading tutors are separated from those of the math tutors. The mean percent scores were generally very high; the range extended from 89 to 98 percent. The overall total of tutoring tasks performed was 93 percent; this speaks well for the tutors' perception of how they were accomplishing their jobs as tutors.

TABLE 19

MEAN PERCENT OF TUTORING TASKS PERFORMED
AS ASSESSED BY TUTORS ON SELF-EVALUATION FORMS

	Number of Self-Evaluations	Mean Percent
Victory	15	94%
Thoreau	18(17)	92%(93%)
Reading	7(6)	98%(100%)
Math	11	89%
Both Schools	33(32)	93%(93%)

The Center observers gave a slightly lower evaluation of the tutors' performance, as reported on Table 20. The scores ranged from 85 percent for Thoreau reading to 91 percent for Thoreau math and Victory reading; the overall total of tutoring tasks performed was 89 percent.

TABLE 20

MEAN PERCENT OF TUTORING TASKS PERFORMED
AS ASSESSED BY CENTER OBSERVERS

	Number of Observations	Mean Percent
Victory	8	91%
Thoreau	9(8)	87%(93%)
Reading	6(5)	85%(94%)
Math	3	91%
Both Schools	17(16)	89%(92%)

When these scores were combined to reflect a single assessment of the tutors' ability to conduct tutoring sessions, the grand mean percent for both schools was found to be 92 percent.

Although these results are desirable, they become even better when the scores for one Thoreau reading tutor are deleted. During the first Center observation of tutoring at Thoreau, a particular tutor received an unusually low rating of 44 percent. When this result was discussed with the tutoring coordinator it was learned that the tutor was having a difficult time for a variety of reasons beyond his control. The teacher of his tutee had been transferred into Unit B from Unit D at mid-year and was not enthusiastic about the tutoring procedure. As a result, she failed to provide the tutor with appropriate materials for the tutoring sessions. In addition, the tutee had behavior problems and was a difficult child for the tutor to handle. The tutor himself was somewhat of a loner and did not share his tutoring experiences with other tutors.

As a result, a fairer assessment of the Thoreau reading tutors may be achieved by looking at the scores of tutors who did receive the support intended for them from the tutees' teachers. The results for all tutors except the one mentioned above are reported in parentheses in Tables 19 and 20. The deletion of this student from the Center observation data raised the Thoreau reading score from 85 to 94 percent and resulted in a 5 percent increase in the total Thoreau score. When this tutor's self-evaluation score was separated from the scores of the other Thoreau reading tutors, the resultant increase was 2 percent. The difference in the overall total when both sets of assessments (self-evaluations and Center observations) were combined was 1 percent, a change from 92 to 93 percent.

Although the principal concern of this part of the field test was to determine whether or not the tutor could conduct tutoring sessions in the manner recommended in the IGM book, these data were also used to view how the tutors performed over time. The results from the three assessments which occurred during roughly the third, tenth, and seventeenth weeks of the procedure are reported in Table 21.

TABLE 21

MEAN PERCENT OF TUTORING TASKS PERFORMED AS ASSESSED ON THREE OCCASIONS BY TUTORS ON SELF-EVALUATION FORMS AND BY CENTER OBSERVERS

	Self-Evaluations						Center Observations					
	First		Second		Third		First		Second		Third	
	N	Mean Percent	N	Mean Percent	N	Mean Percent	N	Mean Percent	N	Mean Percent	N	Mean Percent
Victory	5	94%	5	96%	5	92%	3	97%	3	84%	2	91%
Thoreau	6	99%	6	91%	6	87%	4	79%	3	96%	2	89%
Reading	3	100%	2	100%	2	98%	3	79%	2	94%	1	86%
Math	3	98%	4	87%	4	84%	1	80%	1	100%	1	93%
Both Schools	11	97%	11	93%	11	89%	7	87%	6	90%	4	90%

The mean percent scores fluctuated for the different groups reported in Table 21. Generally there was a slight downward trend over the three time periods; the largest decrease was in the self-evaluations of the Thoreau math tutors.

In conclusion, the objective concerning tutor ability to conduct the sessions was attained; the overall total of tasks performed by the tutors was 92 percent. When the assessments of one Thoreau reading tutor who did not receive the support he needed from his tutee's teacher were deleted, the overall total increased to 93 percent. Although consideration of the results over time showed a slight downward tendency for most groups, the tutors were still performing at a high level toward the end of the procedure.

TEACHER IMPLEMENTATION

Objective: The teacher demonstrates his ability to implement the motivational-instructional procedure Guiding Older Children as Tutors.

The specific tasks required to implement the tutoring procedure were available to field test participants in Tables 5.5 and 5.3 of the IGM book. Table 5.5 outlined the planning tasks necessary to initiate the procedure. Such tasks included preparing a schedule for staff inservice and selecting the subject matter areas for tutoring. Table 5.3 listed the tasks which should be done repeatedly to maintain implementation. These tasks included preparing specific activities for each tutee and monitoring the tutoring sessions. The tables were used as checklists to determine whether or not the adults entrusted with implementing the procedures performed the tasks.

Planning Tasks

Coordinators and principals were interviewed by Center personnel prior to the beginning of the tutoring sessions to find out whether the planning tasks were performed. Table 22 indicates which planning tasks were performed and who performed them at each school. Ten of the 12 tasks were performed at Victory while 11 of the 12 were performed at Thoreau. The staff at Victory did not discuss the general objectives stated for the tutees (Task 2) and both schools omitted preparing a list of the instructional materials and tests for the tutees and tutors to use (Task 8). Although Task 8 was initially seen as unnecessary by both staffs, there were some subsequent complaints about the lack of variety in the material being prepared for the tutees. If a list of materials had been prepared, this problem might have been avoided.

The coordinators were involved in all the planning tasks. At both schools the coordinators received assistance from the principals in planning the inservice (Task 1) and from Instructional Improvement Committee (IIC) members in making decisions regarding subject matter areas and in assigning responsibility for the preparation of tutors

TABLE 22

STAFF MEMBERS WHO PERFORMED TWELVE PLANNING TASKS
AS INDICATED IN INTERVIEWS WITH COORDINATORS AND PRINCIPALS

Task	Victory[a]	Thoreau[a]
1. Prepared a schedule for inservice education related to the tutoring program. For inservice sessions, followed or revised the procedures described in Table 1.5.	Coordinator and principal	Coordinators and principal
2. Adopted or revised the objectives for tutees as given in Table 5.1.	--	Coordinators and principal
3. Selected the subject matter area(s) for tutoring and decided whether tutoring will be directed toward practice of skills or guidance of independant study activities.	Coordinator and IIC	Coordinators and IIC
4. Adopted or revised the tutoring procedures in Table 5.2. Planned and assigned responsibility for teaching tutors to use the procedures.	Coordinator and IIC	Coordinators and IIC
5. Established the criteria for selecting the tutees and the tutors.	Coordinator and unit teachers	Whole staff
[b]6. Planned the evaluation procedures that will be used to determine the tutee's progress, to be sure that the program is being carried out correctly, and to ascertain the effectiveness of the program.	Coordinator	Coordinators
[b]7. Prepared the record-keeping forms, adapting Tables 2.2, 4.6, 5.2, 5.3, 5.4, and 5.5 as desired.	Coordinator	Coordinators
8. Prepared a list of the instructional materials and tests that the tutors and tutees will use.	--	--
9. Selected the tutors and taught them the tutoring procedures.	Unit teachers helped select; coordinator and central office consultant prepared tutors	Coordinators
[b]10. Selected the tutees and discussed with them their role in the tutoring sessions.	Coordinator and unit teacher	Coordinators
11. Matched tutors and tutees.	Coordinator	Coordinators
12. Scheduled times and places for tutoring sessions and arranged to provide necessary instructions and materials.	Coordinator	Coordinators

[a]IIC denotes Instructional Improvement Committee.

[b]Partially determined by field test requirements.

(Tasks 3 and 4). At Victory the unit teachers assisted with establishing the criteria for selecting tutees and tutors and with the selection process itself (Tasks 5, 9, and 10), while the coordinator performed the remaining tasks (Tasks 6, 7, 11, and 12). At Thoreau the principal participated in the decision to adopt the stated objectives for tutees (Task 2), and the entire staff participated in establishing the criteria for choosing tutors and tutees (Task 6). The two coordinators performed the remaining tasks without assistance (Tasks 7, 9, 10, 11, and 12).

Maintenance Tasks

Center personnel interviewed the coordinators three times at 7-week intervals during implementation of the tutoring procedure. The purpose of the interviews was to determine whether the maintenance tasks needed to keep the tutoring procedure running smoothly were being performed either by the coordinators themselves or by other staff members. The results of the Center interviews are reported in Table 23. Blank spaces indicate either that no information was available or that the coordinators were uncertain as to whether the task was being done by other teachers.

According to the coordinator at Victory, seven of the nine tasks were performed over all three time periods. The task of monitoring the tutoring sessions (Task 2) was performed for four tutee-tutor pairs. The IGM book offered the general guideline "monitor sessions" but did not specify that each pair must be observed. Monitoring of some sessions during each time period was therefore considered satisfactory. Feedback and guidance (Task 5) were provided to some tutees during the first and second time periods but not during the third. There was some uncertainty on the coordinator's part regarding whether Task 7, praising the tutees for attaining their objectives, was performed during the first time period; this task was not performed during the second time period, but was performed during the third.

At Thoreau the coordinator for math tutoring was not available for the third interview. Consequently, the results indicated in Table 23 for the third time period refer only to the Thoreau reading program. The results for the first and second time periods, however, reflect both the math and reading programs.

At first inspection the results in Table 23 indicate that the maintenance tasks were not performed at Thoreau to the same degree as they were at Victory. There are blank spaces representing no information or uncertainty on the coordinator's part as well as several somewhat answers indicating that some tasks were performed in part. These results may be due to the difference in the organization of the tutoring procedure at the two schools rather than to a real difference in what actually occurred. At Victory, the coordinator was a unit teacher with teaching responsibilities for most children in the unit. As a unit member she was in constant touch with the other teachers and used some of the unit planning time to discuss the tutoring implementation. She therefore knew "what was happening" regarding tutoring at all times.

TABLE 23

DEGREE OF STAFF ATTENTION TO NINE MAINTENANCE TASKS
AS INDICATED IN INTERVIEWS WITH COORDINATORS

Task	Interviews at Victory			Interviews at Thoreau		
	First	Second	Third	First	Second	Third[a]
1. Planned specific activities for each tutor-tutee pair you are responsible for.	yes	yes	yes	yes	somewhat	somewhat
2. Monitored tutoring sessions.	some pairs	some pairs	some pairs	some pairs	yes	yes
3. Assessed the effectiveness of each tutor-tutee relationship. Provided guidance or changed pairings if necessary.	yes	yes	yes	yes	yes	yes
4. Provided feedback and guidance to the tutor(s).	yes	yes	yes	yes	yes	yes
5. Provided feedback and guidance to the tutee(s).	yes	yes	no	yes	somewhat	yes
6. Praised the tutor for attaining his objectives, including increasing self-direction, if appropriate.	yes	yes	yes	yes	--	yes
7. Praised the tutee for attaining his objectives, including increasing self-direction.	--	no	yes	--	--	yes
8. Assessed whether the content of the tutoring session was appropriate for the tutee and proceeded accordingly.	yes	yes	yes	--	somewhat	yes
9. Related the content of the tutoring session to the tutee's regular instructional program.	yes	yes	yes	--	somewhat	yes

[a] This information applies only to the reading program at the Thoreau school. No information was available for the math program for this time period.

At Thoreau, on the other hand, the two coordinators were "special" teachers from outside of the units who were in charge of the school's Reading Center and Learning Center. They were members of the IIC, and thereby met regularly with unit leaders, but they had little official opportunity to interact with unit teachers regarding tutoring on a daily basis. Their uncertainty is therefore understandable, but it does not necessarily mean that the maintenance tasks were not being performed. The information provided by the reading coordinator for the third time period indicated that all the tasks were being performed for the reading program.

To summarize, the results of the interviews with the coordinator at Victory indicated that seven of the nine maintenance tasks were performed during all three time periods and that the two remaining tasks were performed in one or two of the three time periods. According to the coordinators at Thoreau, four of the nine tasks were performed during all three time periods, one was performed at least in part in all three periods, three were performed in two of the periods, and the remaining task was performed during one of the periods.

To provide additional implementation information, on three different occasions half of the adults identified as being involved in the tutoring procedure were randomly selected to indicate on a self-evaluation form which tasks they had accomplished. (This pool of participating adults included the coordinators at both schools, but not the unit leaders at Thoreau.) At approximately the same 7-week intervals as the coordinators' interviews these adults were asked to check which of the nine maintenance tasks they had accomplished. In all, 10 self-evaluation forms were completed by the Unit IV staff at Victory and 22 forms were completed by the staff in Units B, C, and D at Thoreau.

An inspection of the self-evaluation results as a whole indicated that all the tasks were performed by one adult or another over all three time periods at both schools. These results supported the Victory coordinator's view that seven of the nine tasks were performed and provided the additional information that the remaining two tasks (Tasks 5 and 7) were also performed by one or more of the adults during all three time periods. The self-evaluation forms from Thoreau indicated that the tasks the coordinators were uncertain about (Tasks 6, 7, 8, and 9) were being performed by one or more other teachers. These forms also supported the coordinators' views that Tasks 1 through 5 were being done.

The self-evaluation form asked each adult to identify himself as a teacher of a tutee, teacher of a tutor, coordinator, aide, or "other." This categorization afforded a detailed look at which group of adults was performing each task. Table 24 indicates these results. Each group of adults (teachers of tutees, teachers of tutors, etc.) was given a rating of 1, 2, or 3 according to how often its members listed themselves as accomplishing each of the nine tasks during the three time periods. If the self-evaluation forms indicated that the members of a particular group said they performed a task 90 percent or more of the times they were asked, the group was given a rating of 1. A rating of 2 was given if the members of the group said they performed a task between 70 percent and 89 percent of the times they

TABLE 24

ROLE OF STAFF BY LEVEL OF PARTICIPATION IN NINE MAINTENANCE TASKS AS INDICATED ON SELF-EVALUATION FORMS

Task	Level of Participation[a] by Staff at Victory[b] (N=10)			Level of Participation[a] by Staff at Thoreau[b] (N=22)		
	1	2	3	1	2	3
1. Planned specific activities for each tutor-tutee pair you are responsible for.	c te tr			tb te		
2. Monitored tutoring sessions.	c te u		tr	c		te tb
3. Assessed the effectiveness of each tutor-tutee relationship. Provided guidance or changed pairings if necessary.	c		te	c tb		te
4. Provided feedback and guidance to the tutor(s).	c te tr u			c	te tb	
5. Provided feedback and guidance to the tutee(s).	c te		u	tb	te	c
6. Praised the tutor for attaining his objectives, including increasing self-direction, if appropriate.	c te tr u			tb te		c
7. Praised the tutee for attaining his objectives, including increasing self-direction.	c te tr			tb	te	
8. Assessed whether the content of the tutoring session was appropriate for the tutee and proceeded accordingly.	c te		u	tb	te	c
9. Related the content of the tutoring session to the tutee's regular instructional program.	c tr		te u	tb	te	

[a]Level 1 indicates 90%-100% participation; Level 2, 79%-89% participation, and Level 3, 50%-69% participation.

[b]c indicates coordinator; te, teachers of tutees; tr, teachers of tutors; tb, teachers of both tutees and tutors; and u, unit leader.

were asked and a rating of 3 was given to those groups whose members performed a task 50 percent to 69 percent of the times they were asked. No group performed a task less than 50% of the times they were asked except those groups that did not participate at all. These groups are not listed on Table 24.

At Victory the coordinator and the teachers of the tutees received the highest rating for planning specific tutoring activities, monitoring the sessions, providing feedback to the tutors and tutees, praising the tutors and tutees, and assessing the appropriateness of the tutoring content (Tasks 1, 2, 4, 5, 6, 7, and 8). The coordinator also was highly involved in assessing the tutor-tutee relationships and relating the tutoring content to the regular instructional programs of the tutees (Tasks 3 and 9), while the teachers of the tutees were involved 50 percent of the time in these tasks. The teachers of the tutors received a rating of 1 for their involvement in planning the tutoring activities, providing feedback to the tutors, praising the tutors and tutees, and relating the tutoring content to the regular instructional programs of the tutees (Tasks 1, 4, 6, 7, and 9). They also monitored the tutoring sessions to some extent (Task 2). The unit leader participated extensively in monitoring the sessions and providing feedback and praise to the tutors (Tasks 2, 4, and 6). He received a rating of 3 for providing feedback to the tutees, assessing the appropriateness of the tutoring content, and relating the content to the tutees' regular instructional programs (Tasks 5, 8, and 9). The instructional aide did not perform any of the tasks. This breakdown of roles was as expected from the suggestions given in the IGM book; the only exception was the surprising involvement of the tutors' teachers in planning specific tutoring activities and relating these activities to the regular instructional programs of the tutees (Tasks 1 and 9).

Some adults at Thoreau identified themselves as teaching both tutees and tutors. This group received a rating of 1 for their involvement in planning specific activities, assessing the tutor-tutee relationships, providing feedback to the tutees and praise to both the tutees and tutors, assessing the tutoring content, and relating the content to the regular instructional program of the tutees (Tasks 1, 3, 5, 6, 7, 8, and 9). They received a rating of 2 for providing feedback to the tutors (Task 4) and a rating of 3 for monitoring the sessions (Task 2).

The teachers of tutees only received the highest rating for their participation in planning specific activities and praising the tutors (Tasks 1 and 6). They received a rating of 2 for providing feedback to the tutors and tutees, praising the tutees, assessing the tutoring content, and relating the content to the regular instructional programs of the tutees (Tasks 4, 5, 7, 8, and 9). They were less often involved in monitoring the sessions and assessing the tutor-tutee relationships (Tasks 2 and 3).

The coordinators were highly involved in monitoring the sessions, assessing the tutee-tutor relationships, and providing feedback to the tutors (Tasks 2, 3, and 4). They received a rating of 3 for their participation in providing feedback to the tutees, praising the tutors, and assessing the content of the tutoring sessions (Tasks 5, 6, and 8).

The breakdown of roles at Thoreau was also consistent with the recommendations in the IGM book, with the exception of the total lack of participation by the teachers of tutors only. The guidelines had called on these teachers to monitor sessions and provide feedback and praise to the tutors.

The information in Table 24 can be considered from another viewpoint. That is, which adults were most involved in tutoring as a whole? To answer this question, one needs to look down each "level of participation" column to see which group participated in the most tasks. At Victory, it is obvious that the coordinator was the most involved; this staff member received a rating of 1 for all nine tasks. The teachers of tutees were also highly involved in the procedure and appear in one column or another for all nine tasks; they received a rating of 1 for six tasks and a rating of 3 for the remaining three tasks. These teachers are followed in general involvement by the teachers of the tutors and the unit leader.

These findings are clarified by noting again the organization of tutoring within one unit at Victory. This arrangement allowed the coordinator, as a unit teacher, to also be a teacher of the tutees and tutors. She therefore had the opportunity to complete all of the implementation tasks. In addition, the adults who identified themselves as teachers of tutors because they had tutors in their homerooms also had tutees in their reading skill groups and thus were responsible for preparing the specific tutoring activities for the tutees. With this arrangement teachers of tutees also had opportunities to interact with tutors.

At Thoreau the organization of the tutoring procedures also played a key role in determining which group of adults was the most involved. The teachers who had both tutees and tutors in their unit participated to some degree in all nine tasks. The teachers with tutees only also participated in all tasks but to a lesser extent. The coordinators were involved in six of the nine tasks, and the teachers with tutors only were not involved at all.

Summary

In conclusion, the teacher demonstrated his ability to implement the motivational-instructional procedure Guiding Older Children as Tutors by performing 12 planning and 9 maintenance tasks. As a result of four coordinator interviews and the completion of a self-evaluation form by three random samples of the staff, it was concluded that all these tasks were done at each school by at least one group of adults. The planning tasks were performed by the coordinators with assistance from the principals, IIC members, and unit teachers. The maintenance tasks were performed most often by the coordinator and the teachers of the tutees at Victory, while the teachers of both tutees and tutors were most involved at Thoreau. The involvement of each group of adults except one was consistent with the IGM guidelines; contrary to the guidelines, the Thoreau teachers of tutors only did not perform any of the maintenance tasks.

SUFFICIENCY OF THE IGM MATERIALS

Objective: The information provided in the book Individually Guided Motivation: Guidelines for Implementation and in the films "Guiding Children Children as Tutors" and "Individually Guided Motivation: An Overview" proves sufficient to support implementation of the tutoring procedure.

An important aspect of the field test was to determine whether the information presented in the book Individually Guided Motivation: Guidelines for Implementation and in the two films "Guiding Children As Tutors" and "Individually Guided Motivation: An Overview" was adequate to support implementation of the tutoring procedure. In order to determine the usefulness of these inservice materials the coordinators were asked direct questions about the book and films in a series of four interviews. The questions were from a list of formative evaluation questions raised by the developers. Fifty percent of the participating staff members, chosen randomly, were also encouraged to record their reactions to any and all parts of the materials on comment cards.

Chapters 1, 2, and 5 of the IGM book were pertinent to the staffs of the field test schools. Chapter 1 provided information on how to conduct the local inservice to introduce the entire system of IGM and the individual procedure of tutoring to the school staff. Chapter 2 introduced the theoretical background for the system of IGM, and emphasized the motivational principles which are the bases of the IGM system. Chapter 5 described in detail the necessary tasks to be performed in implementing the tutoring procedure. The degree to which the staff in each school used the information in these chapters and carried out the recommendations given was crucial to the evaluation of both the adequacy of the book and the feasibility of the procedure itself.

One of the first considerations was to ascertain which staff members read and used the book. Two faculty members from Victory and five from Thoreau attended the Center-sponsored IGM summer workshop and read all or most of the book at that time. All other staff members were encouraged to read Chapters 1, 2, and 5 by the principals and coordinators who conducted the local inservice sessions. It was not possible to ascertain whether most teachers at Victory read these chapters, although it was learned that the five teachers in Unit 17 did read them prior to the second session of their local inservice. At Thoreau an estimated two-thirds of the staff read these chapters "briefly." Following the inservice sessions, the book was used solely by the coordinators who were primarily responsible for carrying out the procedures. There was no evidence that other teachers consulted the book for further information.

Of the three chapters relevant to the field test schools, Chapter 5 received the most attention, especially from the coordinators. The organization of Chapter 5 was such that interspersed with an overall explanation of what the tutoring procedure involved were many detailed recommendations for carrying it out. There was some indication that the other teachers, realizing that the coordinators would be primarily responsible for following these recommendations, did not concern themselves with much of the information in this chapter. The information in Chapter 2 was used primarily during the first local inservice session. At that time an overview of the IGM system was presented and teachers were briefly referred to certain pages or tables in the chapter. Chapter 1 consisted of suggested inservice agendas and activities and was used by the principals and coordinators in planning the local inservice but was of little interest to inservice participants.

One feature of the book which was intended to assist school personnel in independently using the IGM procedure was a set of "knowledge and application exercises" spread throughout the text of each chapter. It was assumed that by answering the questions as he read each chapter, the reader would become aware of the most essential aspects of the IGM system and therefore be able to implement it. The usefulness of these questions was therefore of interest.

The Unit IV staff at Victory had answered the 15 questions in Chapter 5 prior to the inservice session on tutoring. There was no evidence that these questions or the 12 questions in Chapter 2 were answered by any other members of the staff. The principal and coordinator saw the questions as helpful while reading the book but did not like or use the approach of answering or discussing them during inservice sessions. During a later interview, the coordinator said that the questions were not necessary for understanding the book.

Although two-thirds of the staff members at Thoreau had read Chapters 1, 2, and 5 "briefly," they did not answer the questions in the book prior to their inservice. Some inservice time was spent in discussing the questions, however. Both coordinators felt that the questions were useful in reading the book but did not like using them as an inservice activity.

The use of the tables in the IGM book was another area of concern. Most of the pertinent information on how to plan and implement the IGM procedures was incorporated in table form throughout the book. Checklists for assessing pupil motivation and the performance of tutors and adults were provided in tables. Inservice agendas and activities and record-keeping suggestions were also given in this format. How the teachers used these tables was therefore of interest in the evaluation of the book.

Two tables in Chapter 1 (1.1 and 1.5) were relevant to planning an inservice program for the school staff. The principals and coordinators at both schools used Table 1.1 to some extent for their first inservice session but did not follow the time recommendations given. Table 1.5 gave specific information for holding follow-up sessions to plan and implement the tutoring procedure. This table was not used at Victory, but was consulted at the beginning of the procedure by the coordinators at Thoreau.

Chapter 5 included six tables. One listed the objectives to be reached by the tutees (5.1); one identified the tasks to be performed in planning the tutoring procedure (5.5); one gave suggestions for preparing the tutors (5.6); and three were to be used as assessment devices to evaluate the tutor's performance during a tutoring session (5.2), the teacher's implementation of the procedure (5.3), and the tutee's change in motivation during the tutoring period (5.4).

No teachers used Table 5.1; some explained that "these same items appear elsewhere." The coordinator at Victory did use the tables outlining the planning tasks to be performed (5.5) and giving suggestions for preparing the tutors (5.6), although she modified the recommendations given in the latter table. At Thoreau the coordinators could not specify whether they used Tables 5.5 and 5.6, saying they flipped through the book all the time, but didn't particularly notice which table they were looking at.

The use of the three "assessment" tables was required by the field test design. When asked if they would have used these tables otherwise, the teachers gave varied responses. The coordinator at Victory thought Table 5.2 was excellent for evaluating the tutors, while one coordinator at Thoreau thought it was unnecessary. The Victory coordinator felt that the use of tables to assess adult implementation and the tutee's change in motivation (5.3 and 5.4) would depend on how formally the staff would use the tutoring procedure outside of the field test. At Thoreau the coordinators felt these tables would be useful with some revisions.

In addition to ascertaining whether the book was read and the tables consulted, the evaluation considered how usable the book's implementation recommendations were. Whether or not the field test staff followed the guidelines exactly or made modifications in them provided information on how well the book met their needs.

On the whole, most of the implementation guidelines were followed quite closely. This was especially true with regard to setting objectives and choosing tutees and tutors. Variations did occur with regard to the time spent for inservice sessions, staff follow-up meetings, preparation of tutors, and tutor follow-up meetings.

The IGM book called for an initial 10 to 15 hours of inservice meetings for the entire staff. Additionally, 8 hours of planning meetings and 1-hour monthly operational meetings were designed for the teachers of tutees and tutors to plan and maintain the implementation of the procedure. This schedule was considerably shortened by the field test schools. At Victory the whole staff participated in 1.5 hours of inservice. The staff of Unit IV used some of their unit meeting time to discuss tutoring but the coordinator took primary responsibility for most of the implementation tasks. At Thoreau the entire staff participated in the initial 2.5 hours of inservice, but there were no further meetings involving teachers of tutors and tutees.

The IGM book called for 10 tutor preparation sessions. Victory held eight sessions and Thoreau held six. The coordinators generally followed the specific tutor preparation recommendations and found them to be successful, although they did have suggestions for their improvement.

One guideline staff members were not able to follow was that of bringing the tutors together after tutoring was under way in order to discuss problems and provide feedback. Although the coordinators at both schools could see the usefulness of this suggestion they could not schedule such meetings into the day. Instead they talked to tutors individually either as they finished a session or on an ad hoc basis as they saw them in the hall.

In general, it can be said that the field test schools followed the recommendations given in the IGM book for implementing the tutoring procedure. Variations occurred in the time spent for staff inservice, in sharing responsibilities for the planning and implementation tasks, and in holding follow-up meetings with the tutors as a group.

While using the book the coordinators and principals made many recommendations for its improvement. These suggestions were later classified into three categories: changes in the organization of the book, deletion of parts, and addition of parts.

It was felt that the book contained a confused mixture of information for several kinds of readers. There was information for an IGM implementor to use in introducing the IGM system to a number of schools. There was information pertinent only to a principal or coordinator within a building who would organize the use of one or more procedures within one school. Some information given was needed primarily by classroom teachers, and finally there was a portion of the book that only the tutors and the person preparing the tutors would use. Including all this material in one book resulted in confusion and redundancy as well as in an ominous size, which some teachers found "psychologically frightening."

As a result, it was suggested that the book be separated into different manuals or booklets. Teachers felt that one manual could include suggestions on conducting the inservice sessions for staff members. The knowledge and application exercises, agendas, simulations, and ideas for discussion could be incorporated in this manual. They felt that another manual could provide an overview of the tutoring procedure and could be used as a general introduction for all personnel. The overview could be followed by detailed recommendations for each step in the planning, implementation, and maintenance of the procedure. Teachers also suggested that a separate manual was needed for the tutors and should include the lessons teaching the tutoring procedures, ideas for role playing, and instructional materials to be used while practicing tutoring. The coordinators' specific suggestions for this last manual will be reported shortly.

Some aspects of the IGM book were seen as not as useful as others. One feature identified for deletion was the formality of the program. Teachers who had previously used tutoring on their own thought that the procedure as prescribed in the book had far too much "red tape." They felt they could use tutoring very successfully without using all the assessment instruments and long-range objectives suggested in the IGM text. One proposal was to present many of the assessment checklists and achievement tests as optional for schools to use if they wanted to formally evaluate their program. If no formal evaluation was planned, short-term objectives for the tutees, teachers assigned to prepare materials, and a short preparation period for the tutors would suffice. (The teachers particularly liked the policy of

preparing tutors and did not want to see it deleted.) One coordinator suggested preparing a "pool" of tutors who could be available on an ad hoc basis. When a child was having difficulty with a particular task or skill, his teacher could simply call on a previously prepared tutor, explain what the tutee needed to work on, and prepare materials for the pair to work on as long as the tutee needed help. Tutoring would not have to be a long-term arrangement.

There were several other suggestions for deletions. Teachers found some portions of the lessons for tutors redundant and also suggested deleting the questions in the book for the reader.

When asked if there were additional ideas or materials that they would have liked the IGM book to supply, the field test participants made a variety of suggestions. Many of their proposals related to additional means of preparing the tutors. The coordinators would have liked to have had a manual or booklet to give to the children being prepared as tutors. They felt that written exercises with which the children could practice tutoring should be included in such a booklet and would be especially helpful during role-playing sessions. At times the coordinators developed these exercises on their own, but they would have liked them to be provided. They also felt that this booklet should include the lessons on the tutoring procedure. In addition to "fill in the blank" questions, which they found stilted and repetitious, the teachers suggested that the lessons include matching and multiple choice exercises. The lessons needed to be sparked up with drawings and might include in list form a summary phrase of each thing the tutor was to do (e.g., be on time, have materials ready, be friendly). The teachers also wanted more concrete role-playing ideas, including some suggestions for having the tutee present a problem for the tutor to handle. The tutors in the procedure had expressed a fear that their tutees wouldn't be as "good" as the ones they saw in the tutoring film and wanted to practice handling some difficult situations. Some final suggestions for the tutor's booklet were to include a "pocket" on the inside of one cover to hold locally developed materials and a "calendar" page where the tutor could write in his tutoring schedule.

The coordinators at Thoreau also felt a need for more audio-visual materials for the tutor preparation sessions. A set of slides, transparencies, or a filmstrip emphasizing the tutoring procedures would have been a welcome change from the written lessons.

Besides suggesting additional tutor preparation materials, the teachers had some procedural recommendations for preparing tutors. One was that from 6 to 10 tutors could be prepared at one time, depending on whether the coordinator had prepared tutors before. Another was that the preparation sessions should be held often enough so that the preparation period is not longer than 1 month. As they prepare themselves the tutors become increasingly eager to begin the "real thing" and may lose their enthusiasm if forced to wait too long. Another suggestion was to include a few "substitute tutors" in the preparation sessions so they could step in when another tutor is absent. One coordinator recommended showing the tutoring film at both the beginning and end of the tutor training period. In this way the film would serve as both an introduction to tutoring and

a reinforcement of what the tutors had learned. A final suggestion concerned the atmosphere in which tutors are prepared. One coordinator stressed the importance of fostering a positive attitude about tutoring. She saw discussions on how it would feel to be a tutee, what makes a good tutor, etc., as more important than the lessons themselves. She felt that if the lessons were over-emphasized, the tutors would be too "cut and dry" with their tutees and not transmit a positive feeling about working together.

The field test participants had further proposals for additions to the IGM book. They asked for simulation activities packaged as worksheets in the book for use in inservice sessions. These activities would allow a local staff to practice the kinds of tasks they would later perform in implementing the tutoring procedure. Another proposed addition to the book was a means of informing parents about the tutoring procedure. It was suggested that a sample letter be included in the tutoring chapter stressing the benefits for both tutors and tutees. An alternative proposal was to include in the tutoring chapter a section listing various suggestions for introducing the tutoring procedure to parents.

The coordinators offered some recommendations to make the implementation of the tutoring procedure go smoothly for other schools. At Victory, the coordinator or the tutee's teacher gave each tutor an "assignment folder" which included the materials he would use for his next one or two tutoring sessions. In addition to the materials, there was a sheet explaining the objective of the activity and giving the tutor directions for using the materials. Thus each tutor knew exactly what he was to do ahead of time. Another suggestion was to make sure that each tutor and tutee knew the exact time and place for each session, whether they were to meet at that place or whether the tutor was to first stop at the tutee's room, etc. It was felt that some difficulty and confusion can result, especially at the beginning of the procedure, if these details are left unspecified.

Another suggestion was to choose tutors who are not the most independent and high-achieving pupils. It was felt that high-achieving children can usually profit from their independent study time, which is often preempted for tutoring. Pupils who aren't totally independent may learn to be very good tutors through the preparation sessions and may profit from the tutoring relationship.

A further proposal was to have the tutor's teacher observe the sessions periodically. It was felt that this would prevent the tutor from feeling left alone in the tutoring responsibility and would provide an opportunity for him to receive some feedback and reinforcement for his efforts. It would also help keep his teacher involved in the procedure.

The matter of keeping all teachers involved in and committed to the tutoring procedure was repeatedly discussed, especially at Thoreau where the tutoring coordinators were auxiliary personnel and not part of the unit staffs. It was suggested that, to prevent the unit teacher from seeing the tutoring procedure as additional work imposed on him from "outside," the person assigned to prepare the tutors and coordinate the procedure be an integral part of a unit. This person could be either a unit leader or a unit teacher provided

with some release time to spend with the tutors. This arrangement seemed to work well at Victory where the tutoring coordinator was a unit teacher. Both schools felt that to have a smoothly functioning procedure there must be some organized way of involving all teachers in the planning, implementing, and maintaining of the tutor-tutee relationships. An alternative suggestion was to have teachers voluntarily become a part of the procedure so that the necessary work would be performed and those who did not want to be involved could not negatively influence the effectiveness of the procedure.

In summary, the response of the field test participants indicated that on the whole the IGM book was sufficient to support implementation of the tutoring procedure. The information needed by school personnel was present in the book, and most of the recommended guidelines were followed. Suggestions for improvement included reorganizing the information for different readers, limiting the formality of the procedure by deleting some of the assessment practices and long-range objectives, and adding a booklet for tutors. The other specific suggestions offered practical ideas for implementing a smoothly functioning procedure.

Although Chapters 1, 2, and 5 of the book Individually Guided Motivation: Guidelines for Implementation provided most of the information needed to implement the tutoring procedure, two films were also available to inservice school personnel about the system of IGM. The adequacy of these films was of interest.

The film "Individually Guided Motivation: An Overview" is intended to introduce the four motivational instructional procedures which make up the system of IGM. It was used by both field test schools during their first inservice sessions. At Thoreau the film was used primarily as an introduction while at Victory it was used to reinforce and clarify an oral introduction to IGM. This film was also used by the Thoreau principal to introduce IGM to parent representatives at a Parent Advisory Council meeting. Both schools found the film satisfactory, although the principal at Thoreau suggested that more information on the motivational principles could have been included.

The second film, "Guiding Children As Tutors," is divided into two parts so that the second portion, Learning To Be A Tutor, can be used for tutor preparation. This feature proved very valuable to the teachers and they repeatedly commented on the excellence of the film in general. A specific suggestion for improvement of the film was to show some tutees causing problems in order to demonstrate how the tutors should handle these situations. Another proposal related to changing a segment where a teacher was shown asking the tutee how he liked being tutored because in this segment the teacher seemed strained and unpersonable. Another suggestion was to show in the film that the teachers are expected to prepare specific activities for each tutoring session. On the whole, the tutoring film was extremely well received and was used repeatedly in both field test schools.

FEASIBILITY OF THE TUTORING PROCEDURE

Objective: The motivational-instructional procedure Guiding Older Children As Tutors proves to be a feasible curriculum component for elementary schools.

In addition to determining whether the inservice materials provided sufficient information to support implementation, the field test was also concerned with the overall question of whether the procedure itself, as prescribed in these materials, was usable in elementary schools. An important aspect in any consideration of usability is the amount of staff and student time required to use the procedure. The faculty members at each school spent varying amounts of time, depending on how involved they were in the procedure. As previously mentioned the coordinators were given the major responsibility for planning and maintaining the procedure. During the initial 1.5 to 2 months of planning the procedure and preparing the tutors the coordinators spent from 5 to 12 hours a week on tutoring-related tasks. Once the sessions were under way, a period of 30 minutes to 1 hour a week was needed to observe and provide feedback and reinforcement to the tutors.

An additional 12 to 24 hours was spent over the course of the year in assessing the tutees on achievement. Half of this time was a result of an extra requirement of the field test design, while the remaining half was part of the assessment prescribed in the IGM book. Another 2 to 3 hours was spent by all participating unit teachers assessing the level of motivation of their students. Repeated evaluations of the tutees' motivation during the tutoring period, of the tutors' ability to conduct the sessions, and of the teachers' ability to implement the procedure took a total of 3.5 hours over the course of the year.

All staff members participated in an initial 1.5 to 2 hours of inservice. The teachers of the tutees spent approximately 30 minutes per week preparing activities for the tutoring sessions. Finally the tutors and tutees themselves spent 20 to 30 minutes two or three times a week in tutoring sessions. Although it was difficult to summarize the time spent by so many individuals involved to a greater or lesser degree in this procedure, it was approximated that the coordinators spent from 50 to 120 hours over the course of the year while the other staff members devoted from 8 to 30 hours to the implementation of tutoring.

As the field test drew to a close it was evident that the teachers felt that the procedure required too much time. They looked forward to using tutoring again but on a less formal and therefore less time-consuming basis. Such comments as "too much red tape" and "this has been an immense undertaking" were given on comment cards and in interviews with teachers during the year. Of particular concern to the teachers at Thoreau were the continual assessment of tutee motivation and achievement, and the policy of setting long-term objectives. They felt that the repeated testing and the use of tutoring over such a long time could hamper the effectiveness of the procedure. These

concerns were expressed within the general vote of confidence given by the teachers to the tutoring procedure itself. In the future they intend to use tutoring for short-range goals and with more informal and infrequent methods of evaluating.

An important consideration when evaluating the usability of any school program is how the children respond to it. The pupils' response to the tutoring procedure was extremely enthusiastic. The tutors were very interested during their preparation sessions and maintained their enthusiasm throughout the year. The tutees also responded favorably to the procedure and did not tire of the sessions. One teacher commented that tutoring bolstered the self-esteem and confidence of the tutors while it made the tutees feel special. Other children in her classroom seemed to envy those who were participating in tutoring. When the children at Victory changed reading skill groups they immediately asked if they were going to be tutored on their new skill.

In conclusion, the field test participants indicated that the tutoring procedure was feasible for an elementary school curriculum, although it needed to be modified in its demands or teachers' time.

IV

REVISIONS

As a result of the numerous suggestions made by field test teachers, the IGM text was reorganized into five separate manuals:

1. A substantially shortened textbook with five chapters: an introductory chapter and a chapter with the implementation practices for each of the four procedures (the latest edition [1975] also includes a sixth chapter on motivational theory).
2. An inservice implementation manual for coordinators who will be inservicing one or more schools to use IGM.
3. A guide for adult-child reading conferences for aides or adult volunteers who will conduct the conferences.
4. A tutor-preparation booklet.
5. A college instructor's guide for those who will teach about IGM in college courses.

Within each of these books, many of the specific suggestions mentioned previously were incorporated. For example, the knowledge and application exercises were deleted, the amount of inservice time was somewhat shortened, and the amount of assessment required in all the procedures was substantially reduced.

The tutor preparation booklet especially reflects the input of the field test teachers. It includes a set of practice exercises with a variety of formats and specific role-playing suggestions. There is a great deal of art work and many examples of what might happen in tutoring sessions. The tutor's tasks are summarized in catchy phrases and there is a place for the tutor to fill in his schedule for tutoring.

In general, the revisions made in the tutoring chapter of the IGM text were guided by a desire to streamline the procedure so it could be more readily incorporated in a busy school schedule. The use of long-term objectives with repeated assessment is suggested for a school staff which wants to formally evaluate its tutoring procedure. On the other hand, tutoring can also be used on a short-term basis or for independent study projects where less formal assessment techniques are appropriate. In this way, each staff can decide how tutoring would most benefit its pupils. The need for teacher involvement in all aspects of the tutoring procedure is reemphasized in the revised materials, with the suggestion that participation in the procedure be voluntary in order to ensure the needed cooperation.

The two films used in the field test were not revised. The suggested changes were minor and were given in the context of a very positive response to the films as a whole. As a result such revisions did not seem to warrant their expense.

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V

SUMMARY

A field test of the IGM motivational-instructional procedure Guiding Older Children As Tutors was carried out during the 1972-73 school year in two Milwaukee, Wisconsin, multiunit schools. At Victory the procedure was used with 22 fourth graders who were tutored by 10 sixth graders on the Level C Word Attack Skills of the Wisconsin Design for Reading Skill Development. At Thoreau six tutees were tutored in reading and seven were tutored in math by two groups of six tutors each.

The field test included six evaluation objectives. The first four were objectives of the tutoring procedure itself; they called for an increase in the motivation and self-direction of the tutee, an increase in the tutee's achievement in the tutored subject matter, a demonstration of the tutor's ability to conduct the tutoring sessions, and a demonstration of the staff's ability to implement the procedure. The final objectives concerned the sufficiency of the IGM book and films in supporting the procedure's implementation and the feasibility of the tutoring procedure in the elementary school.

The assessment of these objectives was accomplished through a variety of instruments, most of which were provided in the IGM book. Checklists for evaluating the tutee's motivation and self-direction, the tutor's ability to conduct sessions, and the staff's ability to implement the procedure were available in Chapters 2 and 5 of the IGM implementation guide. The schools chose the instruments for assessing tutee achievement based on the subject matter selected for tutoring. The sufficiency of the IGM book and films and the feasibility of the tutoring procedure were assessed through interviews based on formative evaluation questions proposed by the developers and with comment cards completed by staff members at both schools.

The objective concerning tutee motivation and self-direction focused on two aspects. The first dealt with the tutee's level of motivation and self-direction toward school in general. The second dealt with his motivation and self-direction during the tutoring sessions and while working on the tutored subject matter. The results regarding general level of motivation and self-direction indicated a greater increase for the Victory tutees than for their comparisons, but basically no change for the Thoreau tutees. When the tutees were contrasted to the other children in the participating units (excluding the tutors and the comparisons), the Victory tutees were found to have scored substantially lower that the others prior to tutoring but much closer to them after tutoring. At Thoreau, the scores of the tutees were similar to those of the other students throughout the year. There was no increase at either school in tutees' motivation and self-direction toward the tutoring sessions (as assessed by the tutor) and while working on the tutored subject matter (as assessed by the teacher), but tutees at both schools demonstrated a fairly high level at the beginning of

the tutoring procedure and maintained it throughout. An interesting sidelight is that the tutors consistently rated the tutees higher on motivation than the teachers did.

The results for the tutee achievement objective indicate an increase in the level of achievement when considering the tutored skills or items. There was a larger increase for the Victory and Thoreau reading tutees on the tutored skills than for their simulated comparison groups. The results for the Thoreau math tutees indicated that they increased more than their comparison group when those test items that covered the content of the tutoring sessions were considered.

The results regarding the tutors' ability to conduct sessions were positive. The tutors indicated on self-evaluation forms that they completed 93 percent of the tasks recommended in the IGM book, while the Center observers felt that they completed 89 percent of these tasks. A combination of these two sets of data resulted in a grand mean of 92 percent.

The school faculty demonstrated its ability to implement the tutoring procedure by performing 12 planning and 9 maintenance tasks. The results of interviews and self-evaluations indicated that all tasks were performed in both schools by one adult or another. Furthermore, the involvement of each group of adults was consistent with the guidelines in the IGM book with one exception: there was a total lack of participation by the teachers of the tutors at Thoreau.

The formative interviews and comment cards indicated that the IGM book and films contained the information needed by school personnel to implement the tutoring procedure. Suggestions for improvement of the book included reorganizing the information for the different readers, limiting the formality of the procedure by deleting some of the assessment practices and long-range objectives, and adding a booklet for tutors.

The formality of the tutoring procedure was also related to the question of its feasibility in an elementary school curriculum. The demand on staff time was seen as excessive although the procedure itself was endorsed by both faculty and participating students. The subsequent revisions of the materials streamlined the implementation requirements of the procedure and thereby encouraged its use in the elementary school.

REFERENCE

Quilling, M. R., Cook, D. M., Wardrop, J. L., & Klausmeier, H. J. Research and development activities in R & I Units of two elementary schools of Milwaukee, Wisconsin, 1966-67. Technical Report No. 46. Madison: Wisconsin Research and Development Center for Cognitive Learning, 1968.

APPENDIX A

MEMORANDUM OF AGREEMENT BETWEEN THE WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING AND THE MILWAUKEE SCHOOL DISTRICT

MEMORANDUM OF AGREEMENT

BETWEEN

THE WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING

AND

THE MILWAUKEE SCHOOL DISTRICT (SCHOOL DISTRICT)

The Wisconsin Research and Development Center for Cognitive Learning (Center) and the Milwaukee School District (School District) agree to cooperate in Type I field test monitored closely by Center personnel, during the school year 1972-73 of the following motivational instructional procedures developed by the Center: Guiding Older Children as Tutors.

A. The Center agrees to:

1. Provide a two day inservice workshop for the district coordinator, the building principal and the unit leaders in the methods and concepts related to the motivational instructional procedures.

2. Provide travel, lodging and meal expenses for the participants in the inservice.

3. Provide for each participating adult a book, Individually Guided Motivation: Guidelines for Implementation, and lend the appropriate films associated with the selected procedures.

4. Send Center personnel to visit the participating school(s) at least three times a semester.

5. Develop, in conjunction with the school, a plan for evaluating the effectiveness of the motivational instructional procedures.

6. Provide at least five copies of the field test report by August 30, 1973.

7. Respond to inquiries from School District personnel regarding the implementation of the program.

B. The School District agrees to insure that:

1. The program is implemented in the following schools according to the specifications provided in the book, discussed in the inservice, and agreed to in the plan mentioned in A.5. Victory School and Thoreau School.

2. Personnel specified in A.1. will attend a two-day inservice in the methods and concepts related to the motivational instructional procedures.

3. School personnel will cooperate in the evaluation of the program as specified in the plan mentioned in A.5.

4. Personnel specified in A.1. will conduct the necessary inservice program for the staff in the building as specified in the plan mentioned in A.5.

C. The terms of this agreement shall be in force from the time it is fully executed through June 30, 1973.

Agreed to:

William R. Bush, Deputy Director
Wisconsin Research and Development Center

Date

Agreed to:

Name

Date

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APPENDIX B

INSTRUMENTS USED TO ASSESS MOTIVATION AND SELF-DIRECTION

CHECKLIST FOR ASSESSING GENERAL LEVEL OF MOTIVATION

(Table 2.2)

Name of Student _____ Date _____

Directions: Rate the child on each of the behaviors listed below. Put a number beside the behavior to indicate how often the child exhibits the behavior. Use this key:

1 = seldom 2 = sometimes 3 = usually

Behavior	Rating
1. Attends to the teacher, other children, or a task when attention is required.	_____
2. Begins tasks promptly.	_____
3. Seeks feedback concerning performance on tasks.	_____
4. Returns to tasks voluntarily after interruption or initial lack of progress.	_____
5. Persists in tasks until completed.	_____
6. Continues working when the teacher leaves the room.	_____
7. Does additional work during school hours.	_____
8. Works on school-related activities outside school hours.	_____
9. Identifies activities that are relevant for class projects.	_____
10. Seeks suggestions for going beyond minimum amount or quality of work.	_____

CHECKLIST FOR ASSESSING MOTIVATION AND SELF DIRECTION
DURING THE TUTORING PROGRAM *
(Table 5.4)

Name of Tutee _____ Date _____

Directions: Mark how the child behaves on each of the things listed below.

If he seldom does it, put a "X" under the "Seldom" column.
If he does it sometimes, put an "X" under the "Sometimes" column.
If he usually does it, put an "X" under the "Usually" column.

	SELDOM	SOME-TIMES	USUALLY
1. _____ (Name of tutee) comes to the tutoring session on time.			
2. _____ pays attention to you (the tutor) and the work you are doing.			
3. _____ brings any materials he needs to the tutoring session.			
4. _____ is friendly toward you.			
5. If you ask him, _____ can tell you what he is going to work on during the session.			
6. _____ continues to work during the session.			
7. _____ takes responsibility for setting up materials and deciding how much time to spend on each activity.			
8. _____ takes responsibility for his own learning, needing only a small amount of feedback and praise from you.			
9. Outside of the tutoring sessions, _____ persists at his work in the subject matter of the tutoring.			
10. _____ works independently in the subject matter of the tutoring.			
11. _____ works outside school hours in the subject matter of the tutoring.			

* Items 1 - 8 can be filled in by the tutor.

Items 9 - 11 should be filled in by a teacher.

APPENDIX C

TEST USED TO ASSESS THOREAU TUTEE READING ACHIEVEMENT

MANUAL OF DIRECTIONS

Test 1: Vocabulary
Tests 2 - 8: Word Analysis
Tests 9, 10: Structural Analysis

		Total Points
Test 1: Vocabulary		
Part A (Preprimer-Primer)	10	
Part B (First Grade)	10	
Part C (Second Grade)	10	30
Test 2: Beginning Consonants		10
Test 3: Final Consonants		10
Test 4: Short Vowels		10
Test 5: Long Vowels		10
Test 6: Irregular Vowel Patterns		10
Test 7: Digraphs		10
Test 8: Consonant Blends		10
Test 9: Contractions		10
Test 10: Base Words		10
		120

Test 1: Vocabulary

Directions: Look at the example at the top of the page. You see three words. I will say one of the words. Circle the word I pronounce. The word is for. (Demonstrate on board. Check to see that the children circle correctly). We will do the rest of the page the same way.

Section A (Pre-primer Vocabulary)

Pronounce:

1. and
2. jump
3. was
4. look
5. must
6. what
7. for
8. ran
9. little
10. you

Section B (First Grade)

1. after
2. when
3. know
4. going
5. his
6. please
7. round
8. think
9. some
10. stop

Section C (Second Grade)

1. would
2. wash
3. their
4. goes
5. around
6. pull
7. sleep
8. best
9. tell
10. very

Test 2: Beginning Consonants

Directions: Look at the example at the top of your page. I will pronounce two words which both begin with the same letter. Circle the letter which you hear at the beginning of both of these words.

Example: cow, cup

We will do the rest of the page the same way. Circle the letter which you hear at the beginning of both of these words.

1. make, must
2. sight, some
3. real, round
4. gate, geese
5. bank, bomb
6. taste, tear
7. pilot, pair
8. next, note
9. copy, coast
10. fame, follow

Test 3: Ending Consonants

Directions: Look at the example at the top of your page. I will pronounce two words which both end with the same letter. Circle the letter which you hear at the end of both of these words.

Example: stuff, cliff

We will do the rest of the page the same way. Circle the letter you hear at the end of both of the words.

1. dream, claim
2. seed, bend
3. yeast, light
4. hug, frog
5. lamp, trip
6. wren, seen
7. yell, spool
8. back, desk
9. flax, mix
10. knob, crab

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Test 4: Short Vowels

Directions: Look at the example at the top of the page. I will pronounce a word. Listen carefully for the vowel sound. Circle the word which I pronounce.

Example: dock

We will do the rest of this test the same way. Listen for the vowel sound and circle the word which I pronounce.

1. but
2. tap
3. pin
4. pit
5. bud
6. cot
7. pet
8. sap
9. did
10. hot

Test 5: Long Vowels

Directions: Look at the example at the top of the page. I will pronounce a word. Listen carefully for the vowel sound. Circle the word which I pronounce.

Example: dame

We will do the rest of this test the same way. Listen for the vowel sound and circle the word which I pronounce.

1. pine
2. ate
3. deal
4. toast
5. cube
6. be
7. rode
8. gait
9. bane
10. toe

Test 6: Irregular Vowel Patterns

Directions: Look at the example at the top of your page. I will pronounce a word for you. Listen carefully to the vowels in the word. Circle the word with the correct vowel sound.

Example: (tool)

toil

tale

We will do the rest of the test the same way. Circle the word with the correct vowel sound.

1. boot
2. boy
3. moan
4. toast
5. cube
6. lead
7. law
8. soil
9. cow
10. pail

Test 7: Digraphs

Directions: Look at the example at the top of the page. I will pronounce a word for you. Listen carefully for the consonants which go together to make a team. Circle the word in which you hear the consonant team.

Example: chain

share

(there)

1. chum
2. thin
3. then
4. when
5. shin
6. ship
7. cheap
8. whale
9. when
10. shell

Test 8: Consonant Blends

Directions: Look at the example box at the top of your page. I'm going to say a word for you. Listen carefully for the first two letters in the word. Decide what they are and circle the word beginning with those two letters.

Example: (store)
snore
floor

We'll do the rest of the page the same way. Listen for the first two letters in the word and circle the word beginning with those letters.

1. clear
2. fly
3. grow
4. sneeze
5. spank
6. pray
7. plan
8. friend
9. brought
10. smile

Test 9: Contractions

Directions: Look at the example at the top of the page. There is a sentence with three word choices at the end. One of these words is a contraction. It is made up of two words and makes sense in the sentence. I will read the sentence aloud. Choose the contraction at the end that makes the sentence correct.

Example: _____ going to school.

She is
(She's)
Don't

We'll do the rest of this test the same way. Choose the contraction that fits in the blank to make the sentence correct.

1.	She _____play here.	can't
2.	_____in the box?	What's
3.	We _____like bugs.	don't
4.	_____a yellow ball.	It's
5.	They know _____have fun.	we'll
6.	_____worth five cents.	That's
7.	Mary said, "_____go to the store."	I'll
8.	The girl _____see the door.	didn't
9.	_____be late to eat.	Don't
10.	_____looking for it now.	He's

Test 10: Basewords

Directions: Look at the example box at the top of the page. What is the root word or base word for the word going? Is it goes, ing, or go? Choose the correct word and circle it.

Example: going

goes

ing

(go)

Do the rest of the page the same way. Look at the word beside each number and then at the three words beside it. Decide which one is the base word or root word and circle the correct one. Go ahead with the work on your own.

1. come
2. find
3. help
4. jump
5. play
6. ride
7. woman
8. call
9. sing
10. wash

STUDENT TEST BOOKLET

Name _____ Room _____

Example: big
can
for

Test 1: Vocabulary

A. 1. am and away	6. went what white
2. jump help play	7. find for under
3. saw she was	8. came ate ran
4. soon look good	9. little funny will
5. must but our	10. yes you yellow

Score: _____

B. 1. after again ask	6. pretty please going
2. walk were when	7. round how know
3. thank walk know	8. came ate ran
4. going every give	9. little funny will
5. her his him	10. yes you yellow Score: _____
C. 1. work your would	6. call pull cold
2. wash wish why	7. sing sleep sit
3. right their read	8. fast made best
4. green goes gave	9. off pull tell
5. around found would	10. many very made Score: _____

Name: _____ Room 71

Test 2: Beginning Consonants

Example: b
c
w

1. n x m	6. d t l
2. j s a	7. y t p
3. r t o	8. m n o
4. k c g	9. c g z
5. p b d	10. w v f

Score: _____

Name _____ Room _____

Test 3: Final Consonants

Example: d
f
k

1. l m n	6. m n p
2. b d a	7. f s l
3. t p c	8. k s x
4. j p g	9. f x s
5. p b u	10. d b p

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Name: _____ Room: _____

Test 4: Short Vowels

Example: duck
dock
deck

1. but bat bet	6. cot cat cut
2. top tip tap	7. pit pet pot
3. pen pan pin	8. sap sup sip
4. pet pit pot	9. did dud dad
5. bad bud bed	10. hot hat hut

Score: _____

Name: _____ Room: _____

Test 5: Long Vowels

Example: dime
dome
dame

1. pine pane pin	6. by be bow
2. at ate all	7. rod ride rode
3. dell deal dill	8. gait goat got
4. toast tossed test	9. bone bane ban
5. curb cube cub	10. toe too tot

Score: _____

Name: _____ Room: _____

Test 6: Irregular Vowel Patterns

Example: tool
toil
tale

1. boat boot bout	6. lied load lead
2. boy bow bay	7. low law lie
3. moon morn moan	8. soil sale soul
4. toast tossed test	9. caw cow coy
5. curb cube cub	10. pail pal peal

Score: _____

Name: _____ Room: _____

Test 7: Digraphs

Example: chair
share
there

1. shun chum hum	6. chip ship hip
2. thin tin chin	7. sheep cheap steep
3. ten then hen	8. whale trail chair
4. wet when hen	9. them when shin
5. sin thin shin	10. sell shell wheel

Score: _____

Name: _____ Room: _____

Test 8: Consonant Blends

Example: store
snore
floor

1. pl cl bl	6. fr pr br
2. fl sl gl	7. pr pl bl
3. gl gr pr	8. fl cr fr
4. sn sm sl	9. vr pr br
5. st sk sp	10. sm sp sn

Score: _____

Name: _____ Room: _____

Test 9: Contractions Ex: _____ going to school. She is / She's / Don't

1. She _____ play here.	can't / can / cant
2. _____ in the box?	What / What's / Where
3. We _____ like bugs.	do / don't / do not
4. _____ a yellow ball.	It's / Its / Let's
5. They know _____ have fun.	well / we will / we'll
6. _____ worth five cents.	Don't / That's / This
7. Mary said, "_____ go to the store."	I'm / I will / I'll
8. The girl _____ see the door.	didn't / cant / can

9.	_____ be late to eat.	He's
		They will
		Don't
10.	_____ looking for it now.	Hes
		He's
		Were

Score: _____

Name: _____ Room: _____

Test 10: Basewords

Example: going goes
ing
go

1.	comes	com coms come	6.	rides	rid ride riding
2.	finding	fin find finds	7.	woman's	woman man wom
3.	helped	helpe helps help	8.	called	led call all
4.	jumping	jump jum ping	9.	singing	sing sin sang
5.	plays	lay play lays	10.	washed	was wash shed

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Score: _____

APPENDIX D

GUIDELINES FOR TUTORING WITH SELF-ASSESSMENT CHECKLIST

GUIDELINES FOR TUTORING WITH SELF-ASSESSMENT CHECKLIST

(Table 5.2)

Name _____ Date _____

Steps in Tutoring	Yes	No
1. Be on time to the tutoring session.		
2. Be prepared with the materials you will use.		
3. Sit beside the tutee, rather than in front of him.		
4. Greet the tutee pleasantly to start the session and talk with him about something he is interested in.		
5. Discuss with the tutee what will be studied or practiced that day.		
6. Look at the tutee when either of you speaks.		
7. Ask a question or give an instruction to the tutee.		
8. Speak slowly and clearly.		
9. Wait for the tutee to answer each question you ask or to complete each exercise given.		
10. For every correct and complete answer, tell the tutee his answer is correct.		
11. Praise the tutee when he gives correct answers.		
12. Praise the tutee for trying.		
13. Correct the tutee's wrong or incomplete answers. Do not pass over them.		
14. Set a good example for the tutee by paying attention to the work and showing him that you like the subject matter.		
15. Be pleasant and try to be helpful throughout the session, especially when the tutee may not seem to learn or understand.		
16. Near the end of the session, review with the tutee what he learned during the session and praise him for having worked hard and learned.		
17. Tell the tutee when and where you will meet for the next session.		

APPENDIX E

INSTRUMENTS USED TO ASSESS TEACHER IMPLEMENTATION

PLANNING GUIDE FOR TUTORING

(Table 5.5)

Tasks To Be Accomplished	Date to Start	Date to Finish	Person(s) Responsible
1. Prepare a schedule for inservice education related to the tutoring program. For inservice sessions, follow or revise the procedures described in Table 1.5.			
2. Adopt or revise the objectives for tutees as given in Table 5.1.			
3. Select the subject matter area(s) for tutoring and decide whether tutoring will be directed toward practice of skills or guidance of independent study activities.			
4. Adopt or revise the tutoring procedures in Table 5.2. Plan and assign responsibility for teaching tutors to use the procedures.			
5. Establish the criteria for selecting the tutees and the tutors.			
6. Plan the evaluation procedures that will be used to determine the tutee's progress, to be sure that the program is being carried out correctly, and to ascertain the effectiveness of the program.			
7. Prepare the record-keeping forms, adapting Tables 2.2, 4.6, 5.2, 5.3, 5.4, and 5.5 as desired.			
8. Prepare a list of the instructional materials and tests that the tutors and tutees will use.			

Tasks To Be Accomplished	Date to Start	Date to Finish	Person(s) Responsible
9. Select the tutors and teach them the tutoring procedures.			
10. Select the tutees and discuss with them their role in the tutoring sessions.			
11. Match tutors and tutees.			
12. Schedule times and places for tutoring sessions and arrange to provide necessary instructions and materials.			

TASKS TO BE ACCOMPLISHED BY ADULTS DURING TUTORING PROGRAM

(Table 5.3)

Name _____ Date _____

Directions: Check one of the following to describe yourself:

_____ Teacher of tutee _____ Coordinator _____ Other (please explain)

_____ Teacher of tutor _____ Aide

Check each of the tasks below that you have completed. If a task is not checked we will assume that you did not do it. Also, please add any comments you feel may be helpful. Thank you.

Tasks	Check	Comments
1. Planned specific activities for each tutor-tutee pair that you are responsible for.		
2. Monitored tutoring sessions.		
3. Assessed the effectiveness of each tutor-tutee relationship. Provided guidance or changed pairings, if necessary.		
4. Provided feedback and guidance to the tutor(s).		
5. Provided feedback and guidance to the tutee(s).		
6. Praised the tutor for attaining his objectives, including increasing self-direction, if appropriate.		
7. Praised the tutee for attaining his objectives, including increasing self-direction.		
8. Assessed whether the content of the tutoring session was appropriate for the tutee and proceeded accordingly.		
9. Related the content of the tutoring session to the tutee's regular instructional program.		

APPENDIX F

INSTRUMENTS USED TO ASSESS SUFFICIENCY OF IGM MATERIALS AND FEASIBILITY OF THE TUTORING PROCEDURE

TEACHER COMMENT CARD

Comment Card
IGM - Tutoring Field Test
1972-1973

Name _____ School _____ Date _____

Position _____

Material being commented on: (circle one) Film Book other

Specific reference: (e.g., state name of film, section, page in book, table no., etc.)

Question/Problem

Do you have any recommendations on how to solve problem or question raised?

Have you tried out your suggestion? _____

If so, what was the result?

What portion of the materials have worked well for you?

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FORMATIVE EVALUATION QUESTIONS
TUTORING FIELD TEST

Book - General

1. Who reads it?
2. Who studies it?
3. Who finds it helpful?
4. How is it used in the local inservice?
5. Is the current organization of the book usable?

Book - Chapter by Chapter (1, 2, 5)

1. Who reads it?
2. Who fills in the questions?
3. How are the questions used in the local inservice?
4. What are the answers given to the questions?
5. Are the questions helpful in reading the book?
6. How are the tables used?
7. Who uses the tables?
8. Are the tables helpful in implementing the program?

Films

1. Who views them?
2. How frequently are they used?
3. Is there any content that should be added?
4. Is there any content that should be cut?
5. How are the films used in the local inservice?

Baseline Data Gathering

1. How much time is spent?
2. Is it felt to be worthwhile?
3. Who is involved?
4. What is the organizational structure for gathering baseline data?

Student Selection Procedure

1. How much time is spent?
2. What procedure is used?
3. Who is involved?
4. What alternatives are recommended?
5. Is it felt to be worthwhile?

Tutor Lessons

1. Are they used?
2. How are they used?
3. Do they need modification?
4. Do they need to be available in another form?

Evaluation Procedure

1. Is it implemented?
2. Is it felt to be worthwhile?
3. Does it need to be modified?

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